



ASK

DR. THERESA

**THE 5 PILLARS
OF WELLNESS**

Notes to the Reader:

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This manual is intended as a reference volume only, not as a medical manual. The information given here is designed to help you make informed decisions about your health. It is not intended as a substitute for any treatment that may have been prescribed by your doctor. If you suspect that you have a medical problem, we urge you to seek competent medical help.

Introduction by Conor Hughes

The purpose of this manual is to serve as a reference guide alongside the Ask Dr. Theresa podcast series “The 5 Pillars of Wellness”.

After each podcast with Dr. Theresa, I re-listen to the episode and write notes about what I’m learning. I find this to be the best way for me to take in Dr. Theresa’s wisdom and apply it to my life.

This manual is a compilation of my notes from the series “The 5 Pillars of Wellness”.

These notes are in no way comprehensive and should not be used as a substitute for listening through the podcast episodes. Listening to Dr. Theresa directly is where you’ll learn the most.

Instead, my goal with providing these notes is to aid your learning process. You could use them as a refresher once you’ve listened to an episode or better yet, you may decide to create your own series of notes and this manual may assist you in that process.

There are 3 sections:

- (i) Section 1 includes three podcasts introducing you to Dr. Theresa’s wellness philosophy.
- (ii) Section 2 covers the first wellness pillar - food. This is an extended podcast series which sets the context and structure for all the other pillars of wellness. For this reason, the food pillar is much longer in length than the other pillars.
- (iii) Section 3 includes the remaining four pillars - movement, sleep, social interaction, and developing an identity of self.

Finally, although I’ve done my best job in capturing the main points presented in “The 5 Pillars of Wellness” podcasts, these notes are my own and are therefore limited to my own understanding of the concepts presented.

My goal is to revisit these episodes regularly and update this manual as my understanding deepens. I hope that you too will join me in this process.

Where to Find the Podcast Episodes

All episodes can be found on the “Ask Dr. Theresa Podcast” which is hosted on iTunes.

[Click HERE to access the podcast.](#)

Alternatively, you can download the “The 5 Pillars of Wellness” episodes via this link - [Episode Downloads.](#)

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Section 1

Dr. Theresa's Journey into Wellness

How to Think about Wellness

Dr. Theresa's 5 Pillars of Wellness

Ep. 27 - Ask Dr. Theresa Podcast Dr. Theresa's Journey into Wellness

Stage 1 - Philadelphia Zoo

- During high school, Theresa spent many years working with animals.
- At the zoo, she learned that when you recreated their natural environment, an animal would become more well. This is in contrast to imposing man made structures upon them which you would often find in zoos at that time. Doing this made the animals sick.
- Making these observations with animals is what planted the seed for Theresa to look for this in other professions/areas of life.

Stage 2 - Developmental Psychology

- Before becoming a doctor, Theresa had a degree in developmental psychology and she worked with young children. Toddlers and preschoolers mostly. She was interested in physical maturation and the changes that occur over childhood.
- She was interested in learning how to create the best environment to facilitate optimal development. This was a wellness perspective rather than being focused on when things go wrong, i.e behavioural problems.

Stage 3 - OB-GYN

- When Dr. Theresa went into medicine, she was very attracted to obstetrics and gynecology because of all the medical specialties these are the most associated with wellness (obstetrics in particular).
- Obstetrics allowed Dr. Theresa to work with healthy pregnant women (wellness) and also pregnant women where things went wrong (medicine). She became very interested in helping those women who had underlying diseases i.e diabetes, cystic fibrosis, heart disease, etc.
- Theresa's personal pregnancy experience also had an influence in her decision to become an OB. She was very well going into her pregnancy but almost died when she had her baby. She wanted to know how it was possible to go from being young and very well to having a normal process like pregnancy almost killing you.
- Her experience being an OB-GYN and working in high risk obstetrics gave Dr. Theresa a very broad perspective of both the medical and wellness models as they apply to humans.

Stage 4 - Movement Doctor

- Dr. Theresa began having problems with her vision. Up until this point she was a very healthy and well person and this was the first time in her life where something happened to her health that really worried her (apart from her problems during her pregnancy).

She found a doctor in behavioural optometry. Her eyesight was fine but how she was seeing the world (perception) was not fine. She had originally put this down to being "clumsy". Her "clumsiness" however was actually a visual processing problem.

With this treatment, Dr. Theresa healed her vision and this completely changed her life. As a child she could not do what she wanted to do physically (i.e play, run, sports, etc.) and she had given up hope that this would ever change.

However that did all change after her vision treatment. It sent her on a journey to learn more about how the brain can change at any stage of life through neuro-plasticity. This was a huge turning point and was the biggest insight she ever had into wellness.

- This is the power of wellness. It is making sure that your natural abilities unfold and are nurtured and developed through the course of your lifetime to help you be able to cope with the world around you.
- Dr. Theresa is not sure if her vision problem was because of something that she did not develop correctly as a child or if it happened due to a head injury. It is not important as restoring wellness might mean - instead of trying to fix what's broken, you can find a new way to reroute the brain and body. The suggestion that that's not possible blocks things for many people.
- Human beings are designed to be well. However something very small can make a human unwell. For example a turtle on their back who doesn't know that they're on their back. They don't know why they can't do what they need to do. This is exactly what happened with Dr. Theresa's vision. She had no idea why she couldn't do what she wanted to do, she just thought it was "clumsiness".

As soon as her vision was treated, she instantly felt all the things that a child would feel about the incredibly strong motivation and desire to play, even though she was no longer a child.

- With this new direction, Dr. Theresa started to work with athletes as a movement doctor. In this field she could observe just how quickly some things could be corrected by "putting the turtle back on its feet again".

This became her area of interest. She would look at someone and think - "What is it that they think about themselves that is so wrong and is interfering with their performance or is causing them pain"?

Then with just small changes she was able to help athletes make huge changes in their performance and pain. As soon as the brain understands that there is a better way, it will choose the better way.

- Working with younger athletes, Dr. Theresa observed that when they had a growth spurt they still maintained a vision of their body before the growth spurt. Biomechanically they would not grow into their "new clothes".

With these athletes you need to help them set things up correctly and help them move once they've set it. Movement is the message to the brain. The brain will then make a new map of the body and that will be integrated into the perception of the young athlete.

- The stories we tell ourselves when there is a misunderstanding can be very crippling. Sometimes they cripple directly and for athletes they often cripple indirectly. This means that as a result of an injury, and athlete that had naturally great movement may change their movement due to something like an injury.

In order to perform they find an alternative route but that route can be inefficient and not designed to bear this burden. They then continue to work an inefficient pathway instead of allowing themselves to reboot the efficient movement pattern.

Over time the inefficient way creates wear and tear, injuries, and compensations. This creates all sorts of problems that were really the response to an initial injury that is long gone and no longer causing problems directly.

Stage 5 - Wellness Doctor

- Dr. Theresa was always interested in women's wellness for all ages and stages of life.
- Women are generally responsible for the socialisation and development of children and that always interested Theresa from her time working in behavioural psychology. This intrigued her about the built in wellness of a mother to socialise the next generation.

Women have now freely given over this role of being the guardian of the wellness. They think that being the guardian of wellness is taking your child to the doctor when they're sick.

- Dr. Theresa also revisited a problem that plagued her when she was an OBGYN in that so many women plan to breastfeed but were overwhelmed and unable to do it. This led to the creation of Natural Breastfeeding.

We currently look at breastfeeding from a milk only perspective and that is the medical model. We are not looking at breastfeeding from the value of the breastfeeding activity itself and how that influences mechanics, social, bonding, mouth, breathing, posture. All of these things are wellness.

This makes sense as a human breast is different for example to a chimpanzee breast. They are called "teats" in all the other animals and each animal has a different teat. A "teat" has a special meaning in that it refers to the shape it has inside the mouth of the nursing infant.

The mechanics of that is important to brain growth and development, not just the milk.

- Nutrition and brain growth is an ongoing interest for Dr. Theresa that is also applicable here.
- Dr. Theresa's biggest wellness message right now is that we've strayed too far. We're out of equilibrium and completely out of homeostasis.

The biggest part of that is social at this point. We need to find a way of melding current technology with our need for human contact and interaction.

We need to regain some of our biological wellness as we are overtaxed in terms of compensation right now. The main place we need to do that is 2 big forgeries - food and social.

Food - We eat something that isn't food. It looks like food and tastes like food and it tricks our brain into thinking that it is food. Therefore we are poorly nourished as a species.

Social - We have inserted many things that make us feel socially nurtured that are forgeries, so actually we are not nurtured. Television was the start of that. It engages your visual system and touches all the feel good buttons in us like feeling safe and loved and protected. These are all things that make you well. But with TV, they are not real.

Because technology is what humans do, we are straying further and further down this path of forgeries. Smartphones, social media, etc. are really problems. However we are totally addicted to them because they seamlessly integrate with how our brain works.

This is not something we are going to be able to undo (history teaches us that). Instead we need to go through it. It will have to start with children being outside with other children (and we need to have tolerance for injuries). This may draw parents together to have a conversation too.

Food and normal play (food for the brain and social) is what we need to figure out how to work back into our lives for more wellness.

What is Wellness?

- Most people will say that wellness means being healthy, and that being healthy means that you are not sick. This perspective comes from a medical model - diagnosis and treatment - "What is wrong with you and can we make it go away."
- "Healthy" therefore means that there is nothing wrong with you. "Wellness" is our inborn resilience to stressors in the environment that can make us sick/unwell/unhealthy.
- Dr. Theresa looks at wellness and illness as "WE" vs "I". Wellness is something that WE humans have in our DNA that helps us deal with challenges from the environment. When you have a lot of wellness then you are resilient. You are more resistant to becoming ill. Or you are able to recover quickly and completely if you do get sick.

"Illness" is the "I". Illness is individual and it happens when your wellness is not capable of making you resistant to disease/injury etc. Therefore the medical model is a more individual model - "What is wrong and how can we best fix it for YOU". This puts us in a mindset of sickness and cure.

- Health and wellness are not mutually exclusive. There is some overlap.
- Dr. Theresa became so interested in wellness from an evolutionary biology perspective and from the mindset of "what makes us human?". From here we can look at the factors that make us human and how to strengthen those to make us more resilient mentally and physically.
- Wellness is something that we have that enables us to live in the world. The world presents many stressors, and our wellness ensures that we can deal with these stressors without becoming sick.

The world always presents stress to humans. In the modern world we say that we are under more stress than ever. That may be our perception, but it is only our perception because we are less able to deal with stressors due to our reduced wellness.

Medicine vs Wellness

- Preventive medicine and holistic medicine are still "medicine" and medicine is a model of disease. Preventive medicine is interventions designed to prevent disease, i.e. vaccination.
- Breastfeeding example. Right now we have many "lactation failures" and we have created interventions to help the "failures". Instead if we look at it from a wellness perspective we can say that mothers have a lack of "breastfeeding wellness" because they did not observe breastfeeding.

The wellness solution then is the mother's body and brain being exposed at the right time to gain this breastfeeding wellness. Another part of breastfeeding wellness is community. It's a community activity. Social and community activities are a big part of wellness.

- Mental illness. Dr. Theresa looks at this as an extreme lack of mental wellness. People have very little resilience, they are not happy and they don't have energy. We have deprived ourselves of many of the things that are essential to wellness, so it's not surprising that we don't have good mental and emotional resilience.

Families and community had a tremendous role in wellness that's been marginalised in favour of the interventions of the experts or the specialists who either prevent or treat disease. And if you are not diseased then you are good enough.

- Children, play, and sports - By focusing on sports and specialisation, many children have completely bypassed things that would be essential to normal wellness. They would say - "I do core exercises"... but they don't have a strong core because you don't exercise to strengthen

your core. You play to strengthen your core because it's a coordination of your brain and your body that prepares your body for external stressors.

It's activated by your visual system in anticipation to a stressor. Therefore you can't "train" it in the way that we think of training. You can "train" and make yourself more resistant to injury... but that is more preventative medicine rather than wellness.

We stopped children playing to avoid injuries. But this has created injuries in other areas, not just physically but also mentally by having them miss out on something that was so essential to our humanity. It's all done in the name of being "healthy" and preventing injuries.

Some children will play and die from a result of playing. We need to be ok with that as play is essential for normal human development.

- We need to move away from talking about wellness factors (food, sleep, etc.) as interventions. This is the sick/medical/health model. We talk about things in terms of a "recommended daily allowance".

This is not what Dr. Theresa considers to be a wellness approach. For example, for sleep we should look at SEASONS, not sleep.

- The biggest problem that we have with our wellness is that we have designed a world that is "Pleasure Island". It makes us feel good until it makes us feel bad, and we have no idea why.

Wellness is a certain sense of our genes developed in a world that was predictable. Since we have designed the world now it has become very unpredictable. It's stimulating, but very unpredictable.

- Once you become ill, your priorities shift dramatically. You are not interested in wellness any more. You are interested in not being sick anymore. That's the problem that a lot of us are in right now. Many of us are sick because we are overtaxed.
- You can't just restore wellness principles and be well if you are sick. Work on not being sick first (health) and then work on wellness.

Other Points

- The body intends to be well. Therefore Dr. Theresa is always looking for the things of how would the body want to be well.
- Humans are pretty resilient. If you have a lot of wellness you can stress yourself a lot without becoming ill.
- We now live in a "pill for every ill" world. An Alice in Wonderland approach.
- Humans are a vulnerable species, therefore both medicine and wellness are important.
- Dr. Theresa has a neurologic condition called "prosopagnosia" which is face blindness. This makes it very difficult to recognise faces, even of people who are very familiar. Everyone to her looks like a newborn baby, and people can't tell newborn babies apart and Dr. Theresa can't tell people apart.

As a workaround she needs to study aspects of people to identify them - their hair, walk, voice, clothes, etc. She has to use a lot of her brain all the time to try and figure out who people are.

- Since Dr. Theresa was so clumsy she developed a lot of compensating strategies. These were no longer needed once her vision was rectified, however these strategies were useful in helping athletes when she worked as a movement doctor.

Ep. 28 - Ask Dr. Theresa Podcast How to Think about Wellness

What is Wellness?

- In our last podcast on Dr. Theresa's Wellness Journey, we loosely described wellness as the following:

Most people will say that wellness means being healthy, and that being healthy means that you are not sick. This perspective comes from a medical model - diagnosis and treatment - "What is wrong with you and can we make it go away."

"Healthy" therefore means that there is nothing wrong with you. "Wellness" on the other hand is our inborn resilience to stressors in the environment that can make us sick/unwell/unhealthy.

- Most of us are stuck in the medical/disease/health spectrum and very few are looking at humans through a wellness perspective. The goal of today's podcast is to take a closer look at health vs wellness to hopefully give us a broader understanding of these concepts and of wellness in particular.

Definitions of Healthy

- The one we have talked about already - People think they are healthy when they are free of disease that they know of.
- Another important definition of healthy that we respond to is what people look like. Therefore healthy is also a perception of what other people think of you.

In our genes we are preprogrammed to look for signs of fertility. Fertility and healthiness are very much linked in our biology. A lot of the fertility that we would look for is youthfulness in females in particular.

Surviving (Health) vs Thriving (Wellness)

- "Survival of the fittest" means fitness for the environment that you are in. A lot of times that means what you are going to eat, and what is going to eat you.

Different environments have different food availability and flora and fauna (plants and animals) are a reflection of that. There is an overall circle of life but there is also many many smaller circles of life.

- Humans are the most adaptable species on earth which means we are able to survive and even thrive in a wide variety of environments.

If the environment is very challenging then our brain will kick into survival mode. The goal is to live to reproduction age and hopefully improve or change the environment more towards a thriving environment. Surviving and thriving are along this continuum.

- The human brain is extremely costly in terms of nutrition. Therefore a lot of human survival is getting food for the brain. We had to figure out how to get certain micronutrients into our diet. Humans are very good foragers. We use food preparation to extract maximal nutritional benefit from our food (we are the only species that cooks - making food a lot more bio available).

No grains are available for humans to eat without first cooking them. Our digestive system is relatively simple compared to other animals so we need foods that are bio available. A lot of other mammals need areas in their guts where bacteria break down food so it is useable to

them.

Humans don't have this capacity to eat vegetation like other mammals, therefore we used our big brains to change our environment and we created agriculture to cultivate vegetables that we can eat.

Why is all this Important?

- One of the main reasons that we have had an accelerated loss of wellness recently is that in our genetics, a lot of surviving and thriving is about adapting to the environment that we are in - how to find the right food, figuring out how to work together, how to be safe and warm. These are the basic needs of a human being of how to survive in a variety of environments all over the globe.

However the big change came when we started to adapt the environment to us. We have made the world that we live in and that world is a ZOO. We are suffering from a lack of wellness that a lot of zoo animals have had for the past 100 years.

In the last 10 - 20 years we have started to realise that if you take zoo animals and if you introduce them back into an environment that more closely mimics their natural environment that they are biologically suited for - they do a lot better.

- Humans are adaptable to so many different environments geographically. So we have to ask - "what about them was the same?". A lot about them that was the same is how we work together. How we make communities, families, pair bond. All these social interactions are extremely important and they are necessary no matter what environment you lived in.

Other animals don't really have these same traits.

When Dr. Theresa first started to think about Wellness

- It started with 2 - 3 books that she read when she was very young:

1: *Biography of Florence Nightingale* - She went to the Crimea as a nurse during wartime. What struck Dr. Theresa is that the changes she made and that had such a difference in the health of the soldiers were not medicine.

She focused on sanitation, caring for them, and community. This opened Dr. Theresa's eyes in that there were other ways that could help people be healthy again, more resilient, and resist sickness.

Summary: People can get well if you help the **environment** be an environment that would be easier for them to get well in.

2: *The Cry and the Covenant* - a book about Ignaz Semmelweis, an Austrian-Hungarian physician. During his time, hospitals were places for sick people but many just went there to die. Pregnant women would also give birth in the hospital, but only if they had nowhere else to be.

Semmelweis observed that doctors would go from the morgue to the operating theatre to deliver babies. More than half of the mothers would die of childbed fever. These were otherwise healthy women who would get sick and die of these massive infections.

Semmelweis started a process of making doctors wash their hands because of his theory that they were transferring bacteria to these mothers. The doctors were very resistant to change as it attributed what they were doing as the reason for killing mothers. This is why many many medical discoveries take many years before they become commonplace. Nobody wants to be told that what they were doing was wrong.

Dr. Theresa's takeaway was that there was a man made environment that made it more likely that you could die in childbirth. Then there was something that you could do that wasn't medical (wash hands) that helped tremendously.

- Both of these books had their feet in both worlds - medicine and wellness. We have within us the ability to be well, if we create the situation where it's easier to be well.

How to Think about Wellness

- We have run into trouble because instead of adapting to environments that helps our survival and then making changes that enable us to thrive - instead of that we keep making shortcuts and exercise is a perfect definition of that.
- Exercise is not the same as movement. It's like a movement "pill" that's designed to offset being sedentary. This is a normal human brain process. We know that we need to move, but we don't have "time" to move so we create exercise.

Exercise is better than being sedentary, but it is not the same as movement. Sedentary is unhealthy. Introducing exercise so you are not sedentary is therefore a "healthy" choice.

Wellness is different. Wellness is setting up your environment so you can't sit so much and set up your life so you are walking and moving around.

- We have created an environment and Dr. Theresa says it is like living in a zoo. For example there are no seasons for light or for food. There are some real benefits - protection from predators and abundant food - that's survival, eat and don't get eaten.

Nothing comes free. A lens you can look through is - "When we improved our life this way, what is the price we paid?". If the price is not obvious we don't know what it is and we ignore it.

- Humans have not evolved. Humans are humans. If we evolved then we would be something else. What humans have done is adapt. Our evolution has made us adaptable. The changes that we see as humans are not evolution, they are adaptation. We adapted to the environments and now in just recent history, we have started to make the environment for ourselves.

It turns out that we are not great choosers of that. We don't look at wellness because it is not obvious. We look at "health" and medicine comes out of that lens.

- Analogy - If you were given one car for the rest of your life, you would take very very good care of that car. You would not expect that you could damage the car and be able to fix it again like new.

We only have one body, but we still don't care for it as well as we would a car if we were to only have one. If people could really understand that we only get one body and not have magical thinking that if something goes wrong then it can be fixed. And perhaps it can be "fixed" but it can't be restored to optimal wellness.

- If you take an animal and you want to increase their fertility and lifespan, you would start off with observing what their natural environment is and then you would try and recreate that. This could be very simple, for example tigers - a tiger is a pure carnivore so you don't feed them things that are not meat. Another change is to not feed them everyday and then they do better too. This is how tigers naturally eat. They eat a big meal like a snake and then they digest it over time.

Primates are different. They have to spend a lot of their diet eating. Their day is naturally filled with almost a grazing behaviour where they are chewing and swallowing and socialising, etc.

If you change their food then a lot of these other factors also change. Any or all these could be important for wellness.

This is a starting point for thinking about wellness. Look at an animals (including humans) natural environment and find the HIGH PAY OFFS. What are their food needs, movement needs, sleep needs, social needs?

Then ask how do you recreate those if they are not being taken care of biologically/naturally by their current environment.

- Food, movement, social, sleep, light. All of these have undergone profound change. Other changes have also taken place which may or may not be stressors including - environmental chemicals, neuroendocrine disruptors, antibiotics (anti-life), electromagnetic technology (wired and wireless).
- The natural world is also full of dangerous things. Just because it's natural does not mean that it won't kill you or make you sick.
- In a natural environment we would have spent so much time thinking about these survival needs. Now that we don't have that it is possible to get into a loop where we have anxiety because you have all these thoughts without any real place to put them.

Ep. 29 - Ask Dr. Theresa Podcast Dr. Theresa's 5 Pillars of Wellness

Summary To Now

At this point we've already gone through 2 other episodes relating to wellness called - "Dr. Theresa's Wellness Journey" and "How to Think about Wellness". In these episodes we've set the groundwork for the pillars of wellness which are as follows:

1. Most people will say that wellness means being healthy, and that being healthy means that you are not sick. This perspective comes from a medical model - diagnosis and treatment - "What is wrong with you and can we make it go away."

"Healthy" therefore means that there is nothing wrong with you. "Wellness" on the other hand is our inborn resilience to stressors in the environment that can make us sick/unwell/unhealthy.

2. Dr. Theresa became interested in wellness from an evolutionary biology perspective and from the mindset of "what makes us human?". From here we can look at the factors that make us human and how to strengthen those to make us more resilient mentally and physically.

Wellness is something that we have that enables us to live in the world. The world presents many stressors, and our wellness ensures that we can deal with these stressors without becoming sick.

The biggest problem that we have with our wellness is that we have adapted the environment to us. We have made the world that we live in and that world is a ZOO. We have designed a world that is "Pleasure Island". It makes us feel good until it makes us feel bad, and we have no idea why.

3. Dr. Theresa's biggest wellness message right now is that we've strayed too far. We're out of equilibrium and completely out of homeostasis.

The biggest part of that is social at this point. We need to find a way of melding current technology with our need for human contact and interaction.

We need to regain some of our biological wellness as we are overtaxed in terms of compensation right now. The main place we need to do that is 2 big forgeries - food and social.

Then a final Quick Overall Summary:

People can get well if you help the **environment** be an environment that would be easier for them to get well in.

More about Humans

- Wellness is an essential part of our DNA. Humans are a living organism. Humans are an animal. Humans live in an environment - the earth. Within that there are many sub-environments that we adapt to.

Most other animals adapt to one certain area - the temperatures, the food availability, the other flora and fauna that are going to be present. They stay within their environment and they develop with those circles of life.

Humans are called "superpredators" or top of the food chain because we can move into many of these sub-environments and adapt to them. We can bend to those environments to help us survive and thrive.

- Language and culture help us to thrive more over time however we are still bound to certain constraints. We have to survive and we have to reproduce. This gives us the same drives (instinctual or inborn) of any other **living** being (bacteria, plants, animals, etc.)
- Animals can't make their own food (like a plant). They have to find appropriate food, eat it, and digest it to survive and then use it to thrive - reproduce. Humans are held to all of these biological standards.

Health is the absence of something that threatens those main survival factors. Wellness is a little different. Wellness is like a bank. It makes you resilient to the environment. The environment always has ups and downs and as we stay in balance with that (internally and externally), we call that homeostasis.

Depending on your level of wellness, you can take a lot of knocks and find your way back into balance pretty easily because the body is driven towards that. If you live on the edge with little wellness then you might do fine until you don't do fine.

Then it can become very hard to get back into wellness, or you may not be able to get back into wellness at all. That's when we start to talk about illness and health.

Hubris and Nemesis

- These are paired words from Greek mythology.
- They believed that gods controlled everything and Hubris would be looked upon as excessive self-confidence or pridefulness of our ability to do things. It is a presumption (that still exists now) that the laws of nature are no longer able to exert any control over us.

This excessive pridefulness and self-confidence comes from nothing bad happening. What is something bad happening? That's Nemesis. Hubris was always paired with Nemesis. Another quote that depicts this is "pride comes before the fall".

Many cultures have similar concepts such as these. They use different words and stories but the message is often the same.

- Hubris can last for a long time and often does, then Nemesis is the downfall in the end. We tend to think of Nemesis as the enemy but that is not the intent of this message. You can continue to develop this defiance of nature's laws and then Nemesis means that at some point - you are going end up paying the bill.

Humans never see the downfall because our Hubris blinds us to it.

- Instead of the Gods of Olympus, the hubris that we have now is that we believe that we are no longer constrained by nature.

The 5 Pillars of Wellness

- These are things that Dr. Theresa thinks all animals need and particularly human beings. They are as follows:

1. **FOOD**
2. **MOVEMENT**
3. **SLEEP**
4. **SOCIAL INTERACTION**
5. **DEVELOPING IDENTITY OF SELF**



- You can choose to increase your wellness in any one of these areas. However they are all necessary in some way.
- The best way to start is to ask, “How can I make changes to these wellness pillars that won’t create a big cost on my stress or situation”?
- Don’t stress too much about which wellness pillars are most important. Just figure out what is doable and start there.

Food

- Food is probably our highest payoff. It always has been and it is our primary drive.
- The illness/health perspective is represented in food with our obsession with how much we weigh. There is a perception that if you are a certain weight then you are healthy and if you are too fat or too skinny then you are unhealthy.

You can be overweight and lose weight and still become less healthy. Losing weight makes no sense in nature. We gain weight and we USE weight. You use weight to run your basic body functions. We need to have a cushion of weight because our brain uses so much fuel and in the real world there are seasons and food is scarce.

What is food?

- It was once alive. It was an animal or it was a plant. Most of our food today is adulterated.

- We have all the instincts of a hunter gatherer but we do not need to go back to that time and that is not going to happen. We can use those instincts to make better choices. We can still hunt for high quality food and we can still make better decisions about the food that we choose (gather).

- The biggest point is that you can make better choices until you first know what our bodies consider food to be. Food is not just nutrients.

- Start with - “When was this food alive and what was it when it was alive?”. That’s what food is. Food starts off as something that was outside of us. In order for us to use food in our body it has to go through some sort of processing. That processing can also alter our food.

- Eating a plant based diet is considered to be healthier by some people. In nature eating a plant based diet is not possible. Plant based diets are an invention of civilisation and manufacturing. You can eat a wide variety of plants that is supplemented by animal products in nature.

Why animal products?

The building blocks of an animal are more of the things that we humans need to build our bodies. Animals parts are higher in nutritional value because they are closer to what they need to be inside us, i.e a animal liver is closer to a human liver than a cabbage is to a liver.

The biggest difference is that plants don’t have brains and a nervous system.

Even against the animal kingdom, we have the biggest brain and the most developed nervous system. Therefore we need building blocks to develop, maintain, grow, repair our brain and our nervous system. A plant does not need those things which is why they are not readily available in plant based food.

This does not mean that eating a bunch of meat does not make you healthy. Many people just eat muscle. In terms of a house this might be the bricks, however you are not going to build a whole new house just out of bricks.

- Building blocks make up the substance of you. Once you are fully grown that then becomes repair and maintenance. They are very valuable and we don't need a lot of them when we are grown.
- You make a body with building blocks but that body still has to run and that's why we need FUEL. In the modern world we don't need as much fuel because there is less physical demands on us.

Agriculture made fuel readily available, primarily in the form of grain. Grain is the seeds of grass. It doesn't spoil quickly and you can store it. They became the staples of many cuisines. This is where civilisation came from and the division of labour.

Feeding a population with a high fuel diet and few building blocks is very inexpensive but it results in a lot of malnutrition.

- So we have building blocks, fuel, and then finally RUBBISH and WASTE (trash).

When you take food in you have to process it within your digestive system. The digestive system is OUTSIDE the body. Once the food is broken down it has to be escorted from the outside to the inside.

What we take into our body that cannot be converted into building blocks or fuel is rubbish. It has to be stored in the body until the trash man comes and takes it. This is done by the liver and the kidneys and is then excreted. This rubbish creates havoc when there is a build up inside the body. These are often referred to as toxins.

- FIBER (also known as roughage) is different. This is waste product. It never enters the body because it can't be broken down by humans. It is excreted immediately.
- Humans are highly adapted to have a wide variety of diets and be able to survive and thrive on them. The problem is that when you just look at nutrients, you get far away from nature's intention for how to nourish our bodies.

Food is what we need to run and nourish our bodies. Building, growth, repair, maintenance, fuel to run, with a minimal amount of toxicity that has to be gotten rid of as we can only get rid of toxins a little bit at a time.

Movement

- In general, people think about movement in terms of weight, fuel, calories in and calories out. We tend to think of movement as the conscious movement that makes us tired - exercise.
- Exercise is like a supplement. For example in food, if you are not getting a particular building block then you can take a supplement. "Exercise" is putting everything into a 1 hour pill instead of having general movement throughout the day.

Exercise is not the same as movement. It's like a movement "pill" that's designed to offset being sedentary. This is a normal human brain process. We know that we need to move, but we don't have "time" to move so we create exercise.

- A human being's body is designed to move, in particular to walk about. If we become very sedentary it creates a huge loss of wellness. We tend to want to make up for the lack of movement in our life with an intensified form of purposeless movement called exercise.

The only purpose of exercise is to make up for the time that you are not moving. A person that has lots of movement has no need for exercise because exercise is supplemental.

- Dr. Theresa is not saying - “don’t exercise”. People might have to exercise if they have so little movement in their life otherwise and they don’t really know how to fit it in otherwise because of our lives have become so sedentary.
- Humans have a biological prerogative to conserve energy because it is difficult in nature to meet our food needs. We don’t want to move around aimlessly and use up our food. Therefore we have a drive to be sedentary.
- If you make yourself move, that’s exercise. If you live in an environment where movement is something that just happens, that is less stressful as your brain does not register it as something that you consciously need to do, it is just there. We have designed an environment where movement requires conscious effort and that is exhausting in itself.
- If you want to be in the habit of less sedentary then you have to change your habitat. Because of this zoo, it’s really difficult to overcome the initial inertia of getting started. We have everything we need so there is a lot less motivation to move.
- Dr. Theresa works a lot now with women’s wellness. A few decades ago, keeping your house in order, raising the children, and putting food on the table would resulted in a very non sedentary life. You are on your feet all the time.

However a huge percentage of women have now left the household and they are in the workforce and a lot of the jobs they have are sitting at a desk. This has a huge impact of women who are struggling with their weight.

- Exercise is better than being sedentary, but it is not the same as movement. Sedentary is unhealthy. Introducing exercise so you are not sedentary is therefore a “healthy” choice.

Wellness is different. Wellness is setting up your environment so you can’t sit so much and set up your life so you are walking and moving around.

A combination of both movement (and less sedentary) and exercise is probably the best solution for the modern world.

Sleep

- Dr. Theresa thinks the biggest health issue today is lack of sleep.
- Sleep is perhaps the easiest wellness factor to make changes in. Sleep is the easiest to improve as it is not hard to determine what your sleep needs are.
- Why do we sleep? When our body is asleep, our brain is awake. Our brain takes information that we encountered throughout the day and it puts it together.

You have to be asleep to flush the toilet of waste in your brain. You literally have to go to sleep to get rid of toxic byproducts in your brain.

- Our sleep problems began when we devised habitats that ignored seasons which integrate with cyclical, periodical body clocks and calendars. We first took out the seasons (which we also do with our food), and then we took out the day.
- The night is no longer the night. We have endless day and endless Summer if we choose it. When you have this and endless fuel then you are “productive” because that’s what nature would be telling you to do then.

When you are productive then you get feel good hormones for being productive. But in the

modern world there is no cyclical nature any more, there is no downtime from this. It puts you on a machine that you can't get off of, but humans are not machines.

- Lack of sleep is an extreme problem for children while their brains are developing.
- Our hubris is always - "For every ILL there is a PILL". The pill is a vitamin pill in food. For movement it is exercise. For sleep, we think about how to cover our "sleep needs" so we are not sick from a lack of sleep.

That is a pill.

That's not a wellness approach.

Social Interaction

- There is probably no species that's as social as human beings. We have a tremendous drive to be connected to other people in family, community, pair-bonding, in raising our children for so much longer than any other species.
- We have an extreme drive to fit in and to have status.
- Solitary humans do not survive. They don't survive physically and they don't survive mentally.
- In the modern world we have created a pill for isolation called social media.
- Our biology makes us very attuned to facial expressions and eye contact and we are not well designed to have more connections than what's in our tribe. This is the amount of people that you can know well in your lifetime. Social media magnifies a normal tribe by millions.

This makes you feel connected to these people because you are not fighting with them and you know intimate details about them but they do not fulfil any of our social needs.

- Social interaction that is satisfying is an important part of wellness. This comes from feeling connected to real people. Digital social interaction often does not give us this sense, instead it can act like a drug that gives us an initial rush but leaves us with no satisfaction.
- We have inserted many things that make us feel socially nurtured that are forgeries, but actually we are not nurtured. Television was the start of that. It engages your visual system and touches all the feel good buttons in us such as feeling safe and loved and protected. These are all things that make you well. But with TV, they are not real.

Because technology is what humans do, we are straying further and further down this path of forgeries. Smartphones, social media, etc. are really problems. However we are totally addicted to them because they seamlessly integrate with how our brain works.

- There are many experiments about drugs which we know the dangers of because they remove us from our human needs. People become less human when they become addicted to their substances. Right now we are addicted to our smart phones in exactly the same way.
- We are addicted to feeling social and social media gives us this feeling, but we are not social at all when we use social media. Social media puts us in isolation.

This is not a possible way for human beings to live. It does not in any way, satisfy our social needs except for in an addiction sense, a pleasure hit that quickly wears off and demands another pleasure hit.

- When you understand how humans evolved into human beings, the number of things that push us towards these different levels of social interaction are fundamental to being human itself. They did not come about in 1,000 or 10,000 years.

We are the only species that has spoken language. That alone should indicate how vital social connectedness is to human beings.

- Humans don't tend to go backwards (technologically) so we will have to find our way through this. We will always be attracted to things that make us feel good and to things that make made feelings go away. Those are called drugs and social media is just a huge drug.

Dr. Theresa thinks that this is the biggest problem we have right now but it's also the hardest problem we are going to have to overcome.

Developing Identity of Self

- If you look at the amount of time that an animal will stay with a parent or group to learn how to become an adult - the amount of time that it takes a human is not comparable to any other animal.

For other animals this is called the juvenile periods and it lasts a couple of years at the most = infant - juvenile - adult.

In humans we have childhood, puberty (biologic), adolescence (cultural delayed reproduction), adult = infant - toddler - child - adolescent - adult.

- Community, meals, family, organisations within community (i.e religion). These all occur in a natural human environment. That is because of our evolution.
- One part of growing into an adult is emotional development. Children start to feel things and we label those emotions. As they get older, hormones can inflame emotions and we label them and we modulate them and all of these things need to be done in the context of how it relates to other human beings.

We've lost a lot of this.

- A big part of what humans need and all mammals do this, is that the juveniles engage in play. We are not doing this in a natural way anymore. We think that we can take away play and give a play pill and somehow develop a higher level human (that didn't ever need to be a child).

We are trying to fastrack our way towards being a better adult. That's hubris.

- Humans are very observational so modelling is an important part of growing into an adult and developing identity of self.

Play is perhaps a more important part. Play is action, reaction, interaction. Children playing with other children is what we need to grow up.

- Play is universal which means it must be necessary to wellness. We don't know how important it is but it must be important because it's built in.
- We look at play like a pill. We know it's important so we try and extract the benefits of play and expose our children to that and discard everything else. We try to accelerate our children so they play faster and better than other children so they will be more successful and have access to all the best stuff and then give it back to us in the end.
- There is also an order of things that naturally would have occurred. Family play would be first, followed by peer play.
- We fail in our identity of self when we don't fulfil our adult potential. In the modern world there is no motivation to grow into our adult selves. One part of this growing into an adult is emotional development. In the modern world we are not growing up emotionally. One reason might be

because of our lack of real social interactions during adolescence. Play is one aspect of this, where children learn how to integrate into social groups and develop emotionally within those settings, including the development of our identity.

- People think that sports is play, but it is not. Sport is organised and play is not. The unorganisation of play is what facilitates growth as the children need to develop skills in that environment.
- Girls are on their phones and social media and that is similar to sports. They are not getting the real life experiences to develop.

Other Points

- By focusing on sports and specialisation, many children have completely bypassed things that would be essential to normal wellness. They would say - "I do core exercises"... but they don't have a strong core because you don't exercise to strengthen your core. You play to strengthen your core because it's a coordination of your brain and your body that prepares your body for external stressors.

It's activated by your visual system in anticipation to a stressor. Therefore you can't "train" it in the way that we think of training. You can "train" and make yourself more resistant to injury ... but that is more preventative medicine rather than wellness.

We stopped children playing to avoid injuries. But this has created injuries in other areas, not just physically but also mentally by having them miss out on something that was so essential to our humanity. It's all done in the name of being "healthy" and preventing injuries.

Some children will play and die from a result of playing. We need to be ok with that as play is essential for normal human development.

- Dr. Theresa looks at this as an extreme lack of mental wellness. People have very little resilience, they are not happy and they don't have energy. Theresa says we have deprived ourselves of many of the things that are essential to wellness. So it's not surprising that we don't have good mental and emotional resilience.
- Wellness is WE. Wellness in general is more comfortable in the female psyche because it is community.

Section 2

Wellness Pillar #1 - Food

Part 1 - What is Food?

Part 2 - The Stages of Learning to Eat

Part 3 - We've Moved from Being Foragers to Being FED

Part 4 - The Modern Forager

Part 5 - The Culture of Food

Part 6 - The "WHEN" Skill of Eating

Part 7 - The "WHAT" Skill of Eating

Part 8 - The "HOW" Skill of Eating

Part 9 - The "WHERE" Skill of Eating

Part 10 - The "WHY" Skill of Eating

Part 11 - The "WHO" Skill of Eating

Part 12 - Quick Start Strategies

Ep. 30 - Ask Dr. Theresa Podcast
Wellness Pillar #1 - Food
Part 1 - What is Food?

Common Food Perspectives

Dr. Theresa works mainly with women's wellness and they think about food in 2 distinct ways:

#1: Dieting - mainly around losing weight by restricting food in some way.

#2: Nutrition - a lot of women are mothers and they think about what food would be good for their families and in particular their children.

Asking about these first is a problem when you want to understand about FOOD.

What is Food and Why do we Need it?

1. Animals need to eat food and plants can make their own "food" (fuel). They do this from taking from the sun and the soil. Plants take solar energy from the sun and convert it into stored energy. Humans can't use the sun for energy, we need food for energy.
2. All animals need food for building blocks to grow, maintain, run and repair our bodies.
3. We need food to be NOURISHED. This is a wellness term. If you want your body to be functioning well, nourished means that you can face times of deprivation where you can not eat the best quality food but your body stores are good because you are well nourished.

In nature when animals are not well nourished, they usually have difficulties with reproduction. When they are poorly nourished they can develop other health problems that can lead to serious diseases. (Wellness - Illness continuum)

4. If we understand how food works, we can start to say "how would that work in my body?". Then you don't need to read the labels that tell you the chemical nutrient composition of things. These labels do not tell you how nourished your body will be. Just because you eat nutrients does not mean that you will be well nourished.

There are a lot of steps between the nutrients and being utilised and absorbed into our body. Most nutrients need hormones for example and other factors to make everything work. They are building blocks but they are nowhere near the end product.

We have recipe books in our DNA which has a recipe for everything we need. We eat food and it's broken down into the building blocks which is like a well stocked pantry where the body can choose what it needs at that time in that person in that environment.

5. We are recycled from the food that we eat. Food was once alive and then it just gets recycled into different forms. This helps you look at food as being broken down and looking at what it provides you.
6. We can get into difficulties with getting the balance right. We can have too much of one building block and not enough of another (creating deficiencies).
7. As a general statement we are under-nourished and over-fuelled. A lot of our foods now are high in fuel but very low in building blocks. In nature this works out fine so long as you are getting small amounts of building blocks which is all that's needed.

In the modern world we are not getting those building blocks because the plants we grow are

not well nourished because of the soil we grow them in. The animals we eat are also not well nourished because we feed them foods that are not suited to their needs (example - feeding cattle grain instead of grass).

8. Once we know if something was once alive, the next question to ask is “How well can it nourish us?”

Food was once Alive

9. This is the idea of the circle of life.
10. Everything that you eat is not food. Salt is an example. Salt is a mineral and we need it but it is not food.
11. In the modern world people eat a lot of things that are not food if we work from the assumption that food was something that was once alive - plant or animal based. We make a lot of synthetic “food”.

These are food forgeries. They trigger digestive and hormonal responses in our bodies which are expecting food to be composed of predictable nutrients that are needed to be well nourished, but forgeries are often lacking in this respect.

Dr. Theresa thinks that this is one of the main contributors to excess fat in modern society.

12. Questions you can ask:

“What was it when it was alive and what has happened to it since it was alive?”

“When it was alive, what was the food of your food?”

For example - plants, particularly grains are grown in poor quality soil with chemical fertilisers and pesticides... livestock used for animal products such as meat, dairy and eggs rarely consume a diet that is rich in the micronutrients needed to make nutrient dense food for us. Furthermore, when supplements and antibiotics are used to push growth and production the end result is instead of a nutrient dense product, the result is “empty calories”.

Everything is recycled. Even if it was plants - did the plant grow in a place where the soil had a lot of nutrients?

Food as Building Blocks, Fuel, or Rubbish

13. Rubbish (including toxins) is something that your body thinks that it might need but once it gets inside your body it is then recognised as something that can't be used because it can't be converted into fuel or a building block. At that point it has to be excreted.

If you have a build up of rubbish in your body then you will have the toxic effects of that. The body is designed to handle a certain amount but the system can be overloaded and with our modern diet it often is.

14. The problem with highly processed foods is that they might look the same as food however they might not have many building blocks and have a lot more rubbish.
15. If our body needs nourishment then our brain might tell us to keep seeking out food and motivate us to overeat because the food that we are eating (food forgeries) does not contain the building blocks we need.

When you eat an egg our body expects it to contain certain building blocks but because we are now commercially raising our chickens and eggs, what we eat is not what our body

expects.

Humans and Food

16. Humans don't eat vegetation, we eat vegetables. Animals that eat vegetation, leaves and grasses need help from bacteria. Another way is to use large fermentation vats in their bodies to change the fiber into nutrients (example - ruminants). No animals digest fiber, bacteria digest fiber.
17. Humans are quite different than other animals in that we can survive and thrive in a number of different (food) environments. One of the ways we can do that is by manipulating food so that it is more nourishing for us.

Example - potato. If you pick it up from the ground then you can't eat it. But if you cook it then it is very usable.

18. Humans are able to adapt to many different environments so we can use many different foods and preparation to extract the nutrients and fuel that our bodies require.
19. We have extended our digestive system outside of our body via cooking and other processing (fermentation - sauerkraut, yeast - bread, etc.)
20. There are a lot of things you can do with a food that was once alive that we have learned through culture to make it more available to our body to become nourished. For example with wheat, there is no amount of chewing or pulverising you can do to make that food, however when transformed into bread, it is now edible as a form of food - a food that is rich in fuel, but relatively poor in building blocks.

Our current problems with excessive fatness comes from that we live in a world where calories are abundant and no longer the priority, micronutrients are. "Empty calories" translate into over fat and under-nourished bodies.

Making Food Choices

21. Making food choices is not a straightforward or easy path. Start with "Where did this food come from?". When you trace that back you start to eat food closer to the state when it was most alive.

Living things are closer in their composition that would be present in our bodies.

22. What makes humans different than all the other animals is a very large brain. Brains are very costly in nature in terms of needing special building blocks that tend to be rare.
23. Most people have heard the term "survival of the fittest", but this is misleading, because the driving force for evolution is survival of the fittest in a particular environment or ecosystem where food recycles itself between plants, animals, and even the bacteria in the soil.

This is how each species has the potential to be well nourished and survive, hence "survival of the fittest". In the natural world, all these living things interact and depend on each other for "food". Human beings have tweaked the system to their short term advantage by using their large brains to modify what is available.

24. **Large brained humans are able to find food or modify food in virtually any environment but we don't do this by instinct, we do this by learning and culture and interaction with other human beings. Our INSTINCT is to look to other people or "experts" to help us make the best food choices. That makes us profoundly different than other animals whose instinct drives them to feed and forage in a highly specific way.**

In the modern world where mass communication is integrated into every part of our life, food

choices are often driven by a single perceived health problem. That health problem is much more likely to be oriented towards disease than to wellness.

In a disease model, many people make food choices to avoid dying if a heart attack, the most common form of death. In a wellness model, we should be making food choices that are appropriate for brain health, which would both optimise our wellness still be heart healthy.

Brains requirements far exceed the hearts. Human “survival of the fittest” means eating for brain health, not avoiding disease.

Brains require things that hearts don't. Hearts are basically a muscle. If you eat for your brain you'll give your body everything it needs, you'll be fertile, and you won't be fat.

25. Human beings need to eat for their brain because it's their brain that makes them human! The brain is very costly in terms of nutrients and fuel and also extremely vulnerable to toxins. The trade off in nature is that we were supposed to use these brains to learn to make better choices about food and food preparation.
26. The modern world is full of food forgeries that our brains would expect to be nourishing but they are not. This is why we can't eat by “instinct” or internal drives in this modern world. If only natural foods were available our brains would likely steer us in the right direction.
27. Humans are omnivores. Our digestive system has the appropriate physical, chemical, and hormonal components to utilise a wide variety of foods. Animals that eat plant based diet need high volume and large numbers of friendly bacteria to convert plant food into useful nutrients. Carnivores, with their simpler and shorter digestive tract, rely on building blocks from animals, which are basically the same building blocks that just need to be repurposed.

But that would mean that the entire animal, whether it is an insect or an antelope would be utilised. That's the only way they get the required variety of nutrients and micronutrients.

For most of human existence, we understood the value of animal products and consumed them in their entirety, but now in the wasteful modern world, we consume only a fraction of the animal - typically eating the muscle meat of poorly nourished livestock.

But you don't get liver nutrients from eating the muscles. You get liver nutrients from eating the liver.

28. The first thing we need to understand is that what we know leads us to the wrong food choices. We need to go back and reform with what we need to think about food from the start.

We have to go back and be a child again and re-learn. But unlike a child, we don't need to do what we are told. We can make better decisions if we have better understanding and better direction. We have all the tools we need to make the decisions, we just need to figure out a way to not be distracted by the distractions that have more to do with marketing and money than they have to do with personal wellness.

We are allowing others to make our food choices and they do not have our best interests in mind, but we need to understand that this is the default mechanism for the human brain. We look to authority and experts but we can choose to become an expert ourselves with minimal effort.

We are able to make our own food choices. This is inborn in every human being, particularly women because of the time and effort required to nourish their children.

29. We must choose our food; therefore, we have to understand what our natural drives are, why we have those and how we can work with our biology and not be tricked.
30. The simplest way to do this is to learn to eat for your brain. Because of the special requirements of a human brain, eating for brain health assures we will be getting the appropriate amount of building blocks, the correct kinds of fuels, and avoidance of toxins that

not only affect the large human brain but also have beneficial effects on the rest of the body in terms of both wellness and avoiding disease.

31. When you eat for your brain, not only are we getting the appropriate amount of building blocks, we also avoid things that trick our body into over-fuelling and storing a lot more fat than our brain would ever be able to use.
32. One of the biggest problems that we have now in terms of information is that we have to filter instead of seek. It's the same with food. We don't have to seek food like we used to as food is everywhere, instead we have to filter food to get what we need and avoid what we don't.
33. Everyone wants a soundbite of how to choose their food but it doesn't work that way. If you understand your body then you will make the right choices for yourself. It's built into you to make those choices as long as you think about them the right way.

Summary:

We want to change our perspective from one of preventing/treating disease and losing weight to a perspective of wellness. Wellness is making our bodies more resistant to disease, feeling good all the time, not having excessive fatness/chronic dieting being the driving force of food decisions (which have little to do with our inherent human needs and a lot to do with modern agriculture, marketing and money).

How do we do that? Start at the beginning, we need a reboot.

Set aside all that you have and build a better foundation. Start again where you are not constantly distracted by information that has been designed to constantly distract you.

The single most important component of wellness is food and food choices. How we think about food has gone far off track, resulting in declining health and more and more effort to "fix it".

When we relearn we need to actually understand humans and food. The basics must start at the very beginning - what is food, why do we need it, what do humans need. Those are our guideposts.

Our goal is to make choices that emphasise small amounts of a wide variety of building blocks, avoid over-fuelling, and minimise rubbish. In this way we extract maximum value with minimal cost and effort which in the modern world will always subconsciously drive our decisions.

1. Animals need to eat food and plants can make their own "food" (fuel).
2. Food was once alive. It gets recycled into different forms (circle of life).
3. We need food for building blocks and fuel, that gives us nourishment.
4. Food is species specific., i.e cattle can consume and process grass. Humans can't.
5. What makes humans different is our big brains. Eat for your brain and you take care of everything else.
6. Ask:
 - "What was it when it was alive and what has happened to it since it was alive?"
 - "Where did this food come from?"
 - "When it was alive, what was the food of your food?"
 - "Is this food what it seems?"
 - "How well can it nourish us?"

Ep. 31 - Ask Dr. Theresa Podcast
Wellness Pillar #1 - Food
Part 2 - The Stages of Learning to Eat

Understanding How Humans Learn To Eat

1. The reason humans have such large brains is that it has enabled us to find food and/or prepare food to survive and thrive in many different environments. Most animals eat in a highly instinctual way but the human instinct is to learn, so we trade flexibility for fixed environments.
2. It's important to remember that our large brains which require a lot of extra calories and are highly vulnerable to damage, evolved for the expressed purpose of helping us find food. Our default is to eat when food is available.
3. Culture, communities, and families is how children learn about food and food preparation. This takes a long time and it happens naturally in a normal human environment. However if children are not learning from their families and community, they will learn from someone/something else.

In the current environment this means that children are learning from marketing. In other words, the emphasis now is on what to choose rather than how to find food to survive.

4. Marketing is applied psychology. Marketers constantly are testing how to influence food choices. Most of these involve playing to our natural biologic drives to be well nourished.

A great deal of the marketing is directed towards health and healthy eating. That's because it works, particularly with women. They want to be healthy and they want their family to be healthy.

5. Just because we are not aware that we are being directed in our thinking, does not mean it's not happening. Therefore we have to find a way of cleaning this clutter from our brain (the marketing information), and replacing it with something that's better, more functional, makes sense, is convenient, and has high value. All of these things have to be present.
6. Convenience, value and taste is the trifecta that attracts us. Right now the world is full of "food" (forgeries) that have all these qualities and in this environment we are designed to overeat/gorge and stock up with extra weight.
7. Most animals require a highly specific diet based on their likely environment. Their digestive system is matched to the foods the instinctively will choose. Carnivores eat meat, herbivores eat plants, and some animals such as humans can eat just about anything.
8. For millions of years humans survived by using their brain to find food. Now that food is abundant we need to use our brain to choose food.
9. It's important to remember that although humans are animals, we are UNIQUE. We don't eat by instinct, we eat by learning, and there is a LOT to learn. We have to learn when to eat, what to eat, how to eat, where to eat and the most troubling - why to eat (because eating does more than satisfy our needs for nourishment.) All of this takes a LONG time. A period of time called childhood.

The Stages of Learning to Eat

Stage 1: Pre-Learning - The Placenta Directs Fetal Nourishment

- Before birth, there is no need for food choice and there is no food learning. The fetus does not eat. Nourishment is provided continuously from the mother via the umbilical cord.

We call these nutrients (not food), because the babies digestive system is bypassed since it's not yet developed. This is done through the PLACENTA.

The placenta doesn't just shift nutrients, building blocks, and fuel from one side to the other. It acts to concentrate important nutrients needed for brain development.

This is the first way that we are nourished. The placenta makes the decisions for us - how to choose the right foods to make sure you are getting what you need and avoiding the things you shouldn't be having.

- One of the most common misconceptions about pregnancy is that the baby is eating what the mother has just eaten. This isn't how it works. The mother's body is actually a storehouse or pantry of many nutrients and unfortunately toxins that she has consumed over a long period of time.

The placenta functions to provide nutrients that the baby needs for this early period of growth and development. Specifically, there is a need for nutrients required to build a large human brain.

- During pregnancy, there is no need for learning because the placenta is directing "food choices".

Stage 2: Learning WHEN To Eat - Milk

- Once the baby is born it continues to be nourished from the mother. The appropriate food for any mammal is the milk of that species. Milk is different depending on the needs of every species.
- The decision of "what" to eat is made for us. All mammals start as univores and there is no food choice, there is only milk. There is no need to learn how to eat because all mammals suckle. Our first food learning is about when to eat.
- As soon as the umbilical cord is severed, passive continuous nourishment ceases and the infant begins to eat intermittently. At first, the immature digestive system requires small frequent meals. Gradually, the time between feedings (meals) increases until the adult pattern of 2-3 meals per day is achieved.
- It's a good idea to rid ourselves of the marketing concept of "snacks". Failure to learn the WHEN of adult eating is the primary cause of obesity in children and adults.
- The three learning milestones of this period are hunger, satiety, and satisfaction.
- A newborn does not understand hunger. Instead, a newborn learns that certain discomforts are alleviated by eating. Hunger pangs (or hunger pains) are signals from the body that it may be time to eat. Hunger pangs are relieved by eating.
- As the infant matures, he or she is able to take in more food at each feeding. Satiety is the learning of how much to eat to last until the next feeding. Newborn babies do not understand satiety. By 6 months of age, an infant will preferentially consume more in the evening in order to sleep through the night.

Nowadays, many children and adults never achieve satiety because they eat all the time, just like a newborn baby.

- A much more complicated milestone is satisfaction. Satisfaction means knowing when to stop eating. In the modern world, it's difficult to learn appropriate satisfaction because satisfaction isn't just a feeling of fullness, it's the brain signalling to stop eating.

Breastfeeding helps this learning because we can't see how much milk is in the breast. This encourages the baby to pay attention to internal cues. A bottle is an external cue. Our natural tendency is to eat until a container is empty whether it a bottle, a bowl, or a great big bag.

The modern environment is filled with external cues that override our ability to learn satiety and satisfaction. That is why we are so prone to overeating.

- Although infancy is primarily focused on when to eat, passive learning about what to eat is starting to take place in preparation for the introduction of solid foods.
- Breastmilk varies from feeding to feeding and mother to mother by subtle changes in flavor that reflect the maternal diet. This is nature's way of preparing learning of which foods are safe. These subtle flavor differences are the precursors to food liking. If mothers eat a nourishing, varied diet, her babies will more accepting of healthy food choices. When a mothers diet contains lots of sweets, that's what her baby will prefer.
- Infant formulas are very standardized. Their flavor profiles tend to reflect the uniform corn based diet of commercial dairy cows. Unfortunately, this is also a characteristic of the modern western diet whether we are eating plants or animals.

In conclusion:

- We are attracted to the foods that we're exposed to. That's one of the reasons we currently eat like a baby. The modern diet is basically corn and wheat that is flavoured by certain chemicals. It's also very micronutrient deficient.

We are not stretching our brain to become familiar with a lot of different things. We are keeping it within this early baby framework of eating almost the same food. This is the result of the modern mothers diet being so unvaried.

What a mother eats during breastfeeding teaches the baby what foods are familiar and safe. A humans default is that unfamiliar food is unsafe. Food likings must be developed with many exposures. If a baby is not exposed to variety then they will be extremely picky eaters as that is the default safety mechanism.

- The recommendation for a very new baby is to feed them on demand - the baby decides when to eat and when to stop eating. Babies learn that when they eat, discomfort goes away - that's learning hunger. Baby cannot see during breastfeeding how much is in mothers breast, so the baby learns to respond to internal cues about when and how much to eat. When babies are fed from a bottle, the adult is in charge and the baby learns to prioritise external cues which will affect satisfaction and satiety learning.

Many adults in the modern world have not learned this yet and are stuck here. They have not learned when to stop eating. They still eat like babies.

Stage 3: Weaning - Learning HOW to Eat and WHAT to Eat

- At around 6 months of age, mother starts to offer solid food choices to baby. This begins a new learning phase. Until this time babies instinctively suck and swallow from mother or bottle. Learning how to eat is much more challenging for humans than other animals.
- Humans are the only species with sophisticated speech. This required an evolutionary change that makes them very vulnerable to choking on foods or liquids. Other animals have completely separate systems for digestion and breathing. Food enters the mouth and then the esophagus on the way to the stomach. Air enters the nose and goes to the lungs via the trachea.
- Up until about 6 months, a human infant has a modification that mimics these separate systems. As the infant begins to vocalize this modification disappears and now the baby must learn to manage foods and liquids without letting them enter the windpipe.
- Additionally, infants of this age get their first set of teeth so instead of suck and safe swallow, babies must learn to bite, chew, and swallow without choking. We call the introductory soft, easy to chew, and easy to swallow foods “baby food”. Over time, children are able to master more difficult foods.
- If you think about the highly processed foods that make up the modern diet, it’s remarkable how many of them mimic the easy to chew and swallow baby foods. Starches such as breakfast cereal, rice, mashed potatoes, french fries, and bread are all infant foods. Even our meats are basically pre-chewed like hotdogs and hamburgers.
- Another form of food learning that begins with the introduction of solids is learning WHAT to eat.

The learning that takes place is not just in identifying new foods. Older babies are training their digestive systems and nervous systems. The nervous system needs to learn which foods provide which specific nutrients. The digestive system needs to learn how to respond appropriately to specific foods with the correct chemicals and hormones so that the food is able to be absorbed and then used or stored.

- Once again we see that food learning, in this case the HOW and the WHAT is a combination of the internal, invisible processes combined with external and conscious learning about food identification and food preferences.

We are all born with certain food likes and dislikes that help keep us safe from food poisoning. We don’t need to learn to like sweet taste. All babies, even newborns, like and prefer sweet. In nature, sweet foods are safe. Human milk, which is loaded with brain building nutrients, is very sweet and this encourages newborns to eat.

- In contrast, bitter tastes will make a baby spit out and sour tastes also encourage salivation and spitting. In nature, many plant toxins taste bitter and sour is associated with meat or milk that has gone bad. These responses help protect babies until they can learn which foods are safe to eat.
- In order for internal body learning to occur, foods must be predictable. In other words, if it looks like a strawberry, it should actually be a strawberry. This is the way our bodies are designed to combine learning from the outside world and learning that has occurred within the body.

In the modern world we can make something that looks and tastes like a strawberry but it is not going to trigger the same digestive process that a real strawberry would. And if we eat it and take it into our body, not only may we be missing certain key nutrients, we also get other things that our bodies do not need.

- In this stage we learn about food. What food is, what it looks like, what it tastes like, how to prepare it, how it acts in our body.

In the modern world we learn none of these things. We don’t like what real food looks like. We

don't like the idea of killing a chicken, gutting and cleaning it. We like things prepared in plastic. We like things to look "clean".

- Mother or other adult caregivers are still in control of the food during this phase of learning. They only offer food that everybody should be eating, for lack of a better term - "healthy" choices. These are foods that have been tested by culture to be appropriate for growth and development.
- Adults, not children, are supposed to be in charge of food choices during this phase. If children have unlimited choices, they will typically prefer more familiar sweet "baby foods" to more nutritious options.

Worried or concerned mothers are now offering candy type foods (i.e. apple juice) that are fortified with vitamins. The marketers tell mothers that these foods and drinks, which young children love, are supplemented with lots of vitamins and minerals. This falsely reassures these mothers that children are getting the same nourishment as they would from a more varied natural diet.

- In nature, animals instinctively choose the foods they need and their diet tends to be highly restrictive. For example, grazing animals choose grasses, not grain or meat. Humans evolved to be able to nourish themselves in many different environments with many different foods but their choices are directed more by learning than instinct.
- Babies start off with a diet of milk which is not only highly nourishing but also easy to consume. Human beings are expected to learn about how to feed themselves without adult supervision and restriction - but this takes time. It also means that children must learn from adults that already make good decisions.
- In the modern world, people (children and adults) can and will continue to consume the kind of foods preferred by babies. Baby food helps children grow taller but today's baby foods are making adults and children just grow wider.

Stage 4: Community and Cooperative Eating - Learning WHERE to Eat and WHY to Eat

- As humans we evolved to forage and hunt in groups.
- As children mature, their social group expands from close family to friends and community. How the people around us eat has a profound effect on our own personal eating habits. Our instinct for lifetime learning continues to be the driving force behind our food choices.
- At this stage, the juvenile (a juvenile is an animal that is old enough to feed itself but is not yet sexually mature) starts to make decisions outside the family and the mother. In nature, this means that you start to learn the cost of food. This does not occur in modern society where food is so abundant, available, and convenient.

For millions of years, survival depended upon adequate food despite seasonal changes and inevitable shortages. Our biology primes us to eat, even overeat, when food is available. All that has changed in just decades.

This has had tremendous impact on WHERE we eat and WHY we eat.

- Babies don't have much choice about where to eat because they must be fed. It's a right of passage to join the family table where we learn not just about eating but about how to be social. For most of our existence, meals were a necessity and the days and seasons revolved around these gatherings where the food we ate was a reward for our cooperative efforts.
- During this phase, children didn't just passively learn about food, they became active participants.

- Mealtimes mean you don't just eat anywhere and everywhere. This structure has completely vanished. Not only are we basically "fed", we often eat food alone and wherever and whenever it's available because all the effort is now done by others. To our brains, food appears as if by magic - just like it does to a baby.
- So WHY do we eat? The seemingly obvious answer is because we are hungry. So maybe the real question is why are we so hungry?
- If human beings only felt hunger when they needed to eat, obesity would not exist. Diets would be ridiculous, because what is a diet but denying hunger. We have this problem because humans get tremendous reward in terms of feel-good hormones when we eat. Furthermore, because our large brains require lots of calories even though they don't exercise, we are motivated to eat whenever food is available.
- Dr. Theresa says that even though food availability has been increasing for a long long time, meals and structure put boundaries that helped prevent overeating. All that is gone now. We are truly kids in a candy store.
- Like babies, we discover that food can make uncomfortable feelings disappear. For babies, food is easy and is just "there". Part of growing up used to be learning about the cost of food. Nowadays, food is always available, it's delicious, and the effort behind it is invisible to us. When food "works", there is little need to find other ways to deal with uncomfortable feelings or emotions.

Since food makes us feel better, our brains are constantly telling us we are hungry.

- It gets worse. The world of a baby is very limited especially when it comes to food. But as children grow they learn about food cues. Food cues are things in the environment that signal our brain to think about eating.
- We live in a world that is not only filled with food, it is filled with food cues. An enormous amount of money and research is devoted to discovering more and better ways to get us to eat. The cost of food used to mean the direct effort it required. Today, the cost of food is dollars and there is intense competition for those dollars. The ones who will be most successful are those that cue us to eat.
- We are human. We have advantages and limitations. We don't eat by instinct, our instinct is to learn. We learn whether we are aware of it or not. Most of what we learn about food and eating happens during infancy and childhood - it is passive. We never stop learning but changing early eating habits requires active learning and effort.

We are the most adaptable species on earth, we have been able to survive and thrive in countless environments. This is just a new environment. In this environment, food is abundant but it is not equal in value. In this new world, we can't just learn to feed ourselves, we must learn to nourish ourselves. We have all the tools necessary to do this. We were born with them.

- We think of learning by what you learn in school but that is a very very small part of learning. We learn by observing the world around us. That type of learning is happening all the time.

The default for humans is to learn from what's around them. In nature this would usually be learning from the parents and community. In the modern world this means learning from a screen (TV, tablet, etc.).

- We have this tremendous drive to learn about food because it was essential to our survival as a species. This learning would have taken many years and it was biologically paired with physical maturation. Babies have different abilities than children and children have different abilities and skills than adults. Understanding human nature means we can use our brains to work with our biology rather than fight it. It means we can avoid problems rather than deal with the unhealthy consequences.

Stage 5: Reproductively Prepared Adult - Role-Model

- Nature has no investment in individuals. The survival of any species depends upon surviving long enough to successfully reproduce healthy offspring. Fertility is compromised when mothers are malnourished. The onset of puberty signals adequate but not necessarily optimal nutritional status.
- It's important to remember that during pregnancy and lactation, the growing infant draws upon maternal stores and not just what the mother is eating at the time.
- Parental preparedness isn't just physical. Parents are role-models for the next generation. Their children will learn to eat the same way they did - by observation.
- Our lack of eating skills continues to create health issues for future generations.
- Nature assumes adults are able to feed themselves, to feed their children, and also to help feed their families and communities. As our community has changed from a small tribe to large global commercial food production, we no longer need to learn how to eat because now we are fed as if we were babies.

Starvation has become rare but obesity is now common. We still need to use our brains to nourish our bodies.

Solutions

The result of this is that we over-fat and under-nourished.

What can we do to change this? We need to stop eating like babies and incorporate some basic eating skills into our daily diet.

These are the WHEN, WHAT, HOW, WHERE, WHY, WHO

Ep. 32 - Ask Dr. Theresa Podcast
Wellness Pillar #1 - Food
Part 3 - We've Moved From Being Foragers to Being Fed

Overview

1. Now we're starting from a blank slate. The purpose of the first parts of this series was to break down our preconceived notions about food as they can get in the way. We don't want to build upon faulty assumptions as this inevitably leads to frustration and failure.
2. Most of us know a lot about nutrition and diets. That's not "wrong". It's just a path that has gotten narrower and narrower and it has not been successful for a lot of us. A much more useful approach is to start with understanding and awareness of food and eating behaviour.
3. People like to categorise things - "is it right or is it wrong?". Food is neither of those things. People really don't feel confident to make real decisions about food but they feel confident to make decisions about food from what they've learned. An example would be reading labels with the mindset, "I know what healthy foods are".
4. When we think about healthy eating practices, the words nutrition, nutrients, and nourishment are commonly used because they sound scientific. The reality is these words are poorly defined and not well understood. Furthermore, they are often used interchangeably although they have quite different meanings and applications.
5. Perhaps the very worst word is the most common - "diet". Most people think that "diet" is what you go on to lose weight. We use that word to signify food restriction in some way. What the word "diet" should mean however, is your **way of life**.

Nutrients and Nutrition

6. Nutrient or nutrients are specific scientific words referring to chemical composition. Food is broken down to its smallest building blocks which are then identified and measured.
7. "Calorie" is also a specific scientific word. Almost no one knows the true definition. Calories are measured by burning up a piece of food and measuring the change in temperature of the water bath surrounding it. We have generalized this to mean identifying the food we eat and the change in how fat we get! No wonder we are so confused!
8. We care about nutrients because of the medical model of diseases caused by deficiencies, not health. Lack of specific nutrients can result in deficiency diseases or death.
9. We learn about the deficiencies from history. For example, the Vitamin C deficiency disease scurvy killed millions of sailors because they had no access to fresh fruits or vegetables during long voyages. Long before we understood the scientific concept of nutrients, we discovered the addition of certain foods would prevent or cure deficiency diseases.

Nowadays, specific "nutrients" are much more likely to come from a laboratory than from food. But the original concept of deficiency rather than health and wellness is still in effect.

10. In a world where food and food choices are so abundant, we are still making choices to avoid specific deficiency diseases instead of making choices that give us the kind of robust health associated with general disease resistance and feeling and looking our best.
11. That's the current model that we have for nutrients. We look at them in terms of if you get a disease by not having enough of a certain nutrient. The model is based on disease prevention.
12. We're getting distracted by this science. The deficiency model is how we have gotten to this point in our thinking.

From Being Foragers to Being Fed

13. In modern civilisation we have moved our energy away from thinking about and working for our food. We've passed that responsibility to our government and food producers.

In essence, **we've moved from being FORAGERS to being FED.**

14. Within this framework, the focus of our governments is not wellness. The focus is to prevent deficiency diseases, **in the cheapest way possible.**

15. Historically, the primary deficiency disease was starvation. That's the primary goal of the government - to prevent starvation. The secondary deficiency disease is nutrient deficiencies.

That's where we get the concept of "Recommended Daily Allowance". The data behind those numbers is in relation to getting enough of those nutrients to prevent a nutrient deficiency.

None of these measures are concerned with wellness. That is not the role of the government. The role of the government is to keep us alive, to ensure our survival.

16. The second entity that is feeding us is the food producers/marketers. Their primary goal is to make a profit.

They can take a food like milk, strip it down into different elements, and sell it to us in many different forms - butter, ice-cream, low fat milk, etc.

One of the strategies they use to convince us to accept these different food forgeries is by using "science" to tell us how healthy their options are. They add synthetic nutrients to these stripped down foods. This may prevent us from developing a deficiency disease, however it does not make us well nourished.

SUMMARY

We've moved from being FORAGERS to being FED.

- There are 2 entities currently feeding us - Governments and food producers/marketers:

#1: The goal of governments is to prevent deficiency diseases which are calorie deficiencies (starvation) and nutrient deficiencies. Governments are not concerned with wellness.

#2: The goal of food producers/marketers is to make a profit. They will sell us whatever makes the most profit, not what makes us well.

- Instead of being FED by governments and food producers, we need to use our brains to FORAGE with the goal of being well nourished. We are born to be foragers, that's why we grew this big brain in the first place.

We can start to forage by asking - "What would I eat if I had all the choices available to me and I wanted to be well nourished?"

- A starting point in the modern world is to shop the perimeter of the grocery store instead of reading labels. **Ask - "How close was it to the dirt? And what was in the dirt?"**

- Look for food that's closer to what it was when it started out, with less human intervention along the way. It doesn't have to be all of your food, just start to do that. That makes you a better forager.

Ep. 33 - Ask Dr. Theresa Podcast
Wellness Pillar #1 - Food
Part 4 - The Modern Forager

Overview - From Being Fed to Being Foragers

1. Before agriculture, humans were foragers. Foraging means finding food for yourself and/or others. Another common term for this is “hunter-gatherers”. For millions of years, this is how human beings got their food.
2. We are designed to use our brains, to work in a team, and to use other people’s knowledge to find food to survive and thrive. These are innate skills in every human being.
3. If our inborn talent is to forage, we have to understand that the environment today requires us to forage for information. In the past, information was difficult to acquire. The modern world is much different, we have an over-abundance of information. Much of this information is mis-information or disinformation, mixed with really good information.

Our brains now have to use these innate foraging instincts to make better choices when there is abundance.

4. Throughout history, humans have congregated and food production was delegated. In these environments, many people no longer needed to forage for their own food. Farming is one example.

This did not cause the population to become overweight and unwell like we are experiencing in the modern world. So what has changed?

5. Firstly, the sheer abundant availability of food is one issue. This triggers us to overeat, the key word being “trigger”. Currently we are being offered many tempting choices that trigger our brain into buying those foods.

When there is buying, there is also selling. Someone is selling us these foods and there is a lot of competition to get those dollars. Therefore much of the science has gone into synthesizing the food to make it maximally appealing and maximally triggering so that people will over-consume.

In the natural world these triggers would help us choose wisely but now the food producers have learned how to use these triggers to make us buy and consume more than we need.

6. What we need to overcome this is to use our brain to make conscious choices about what to eat, rather than allowing these unconscious triggers dictate our food choices.
7. Before you know how to forage, you have to be fed. Fed means that someone in your family or community already knows how to forage and they provide food for you until you can learn to do it for yourself. This is where we have run into trouble. We are being fed throughout our whole lives.

We think we are choosing our foods, but the reality is that we are being fed. The advertising, the marketing, the science, the subsidies for certain foods - all of those make us rely on other people (so called “experts”) to make our food choices for us.

This is our natural instinct, to look to a trusted source to feed us until we are ready to feed ourselves. However the “experts” we have placed our trust in do not have our best interests at heart and we never move on to the next stage which is learning how to forage and choose food for ourselves.

8. Dr. Theresa hopes that when people hear this information and understand the process, they will start to move through the stages of becoming a forager. This is as difficult today as it ever was and it takes years to learn.

How to Become a Better Forager in the Modern World - Understanding Providing, Preparation, and Packaging

9. Investigate who is providing your food and how they are providing your food.
10. If your food is prepared for you, start to make choices about how it is prepared. This takes time and effort.
11. How to not be tricked is another step in how to become a better forager. This relates to how food is packaged.

Why are we choosing things that make us fat and unhealthy? Dr. Theresa says it's because of the "packaging". This refers to the triggers that scientists have studied to make us eat like a baby. **Science has studied us as a species** - scientists know how to stimulate our instincts to overeat and this is now incorporated into the modern food packaging.

12. Packaging has trained us to be repulsed by real food and to buy based upon the packaging alone. We like chicken mcnuggets, we don't like chickens that have their head chopped off and need to be gutted, cleaned, etc.
13. Milk is another example of packaging. We like milk and butter and ice-cream. But we don't like the idea of milk coming from a mammary gland. If you told people that the milk they were eating was from another source like breastmilk then we would be revolted by the idea. We have been trained to not like food the way it actually looks.
14. Our diet has the appearance of being incredibly varied when in reality, it's not. In America, the diet is mostly corn. Even the meat and the milk is mostly corn because that's what's fed to the animals. A cow that eats a diet of all corn is not the same cow that grazes in different places.

To be a better forager you need to know the food of your food. If you eat well-nourished animals then you will benefit from that nourishment.

15. We were hunter-gatherers for millions of years. We became farmers and agriculturists only 10,000 years ago. The food packaging has only been around for a few generations. We are still the same human we have always been and we have millions of years of foraging skills that we can use to navigate the modern food environment.
16. Learning the skills of eating is a huge part of becoming a better forager. Eating a meal and including the social aspects of eating are a part of that. Incorporate some real food that is closer to its natural state into your diet. Prepare SOME of your food, or choose one day a week to prepare some food so you are a little more in touch with it.
17. Start with the strategies that are easiest for you to learn and add to your life.

Ep. 34 - Ask Dr. Theresa Podcast
Wellness Pillar #1 - Food
Part 5 - The Culture of Food

Overview - The Culture of Food (The Role of Culture)

1. From generation to generation, information about food was passed down and utilised by everyone. This makes for a stable style of eating and diet (meaning “way of life”) in that area to nourish everybody.
2. This nourishing diet came about with thousands and thousands of years of trial and error.
3. Now in modern society, any food is available at any time. Food culture does not exist in the sense that it did before because we no longer live in small tribes with access to a finite supply of local foods.

The Role of Women

4. The role of women at home and in the workplace has changed in recent generations and this has altered our food choices to some extent. Overall, it has had a detrimental effect.
5. Foraging and food preparation that needed to be done was in the hands of women for basically every culture. In the modern culture, women have traded this role for a salary in the workplace and food culture has suffered as a result. Women are still trying their very best to choose the most nourishing choices, but they just don't have the time.
6. This has left a big void in what was probably a very very important job - the nourishment of family and community. The structure of eating in terms of socialisation and modelling has been lost as well (the skills of eating).
7. Humans have been around for millions of years as hunter-gatherers. In the main Paleolithic period (around 50,000 to 200,000 years ago) the larger brain we had made us a much more formidable predator. What we saw then was the age of Mammoths, Men, and Muscle.

This is a time where we have evidence of the development of weapons and tools. This created a co-operative effect in the dangerous activity of hunting. This period was more male dominated in terms of getting food. Women were probably more involved with gathering plant type foods.

As you move towards the late Paleolithic period (just 50,000 years ago), we have all this evidence that there is a whole lot of new tools - traps, nets, digging tools, fire. Now the women were able to share wisdom and culture and prepare foods for better nourishment.

We see that areas that had a lot of brain building foods like shellfish, eggs, and small animals, were places that women could hunt/gather those foods. This female participation meant more brain and less brawn. This all led to an upswing in the size of our brain and a pulling together of these cultures and the beginning of civilised people.

Agriculture was then invented which ended these small hunter/gatherer tribes. Farming led to the ownership of property and the family unit became important again. As farming became more of a group effort we began to trade and sell food. This freed humans up to spend more time on the development of culture and civilisation.

8. Throughout this time, women were in charge of the food. In the modern world this is still the case but with their energy divided into other areas such as the workplace, they need convenience. This has moved us more and more towards prepared and packaged foods.

9. When people hear this they automatically assume that what women did was somehow inferior or less important. Or the other extreme where you might say that what women did was superior and more important.

However what is most likely is that women's role was egalitarian and complementary which is that without both men and women, you'd have nothing. That's really the reason for having sexual dimorphism in human beings. Not all species have this. Male and female humans are very different than each other.

The New Role Model

10. Throughout human history, women were our role models in regards to food and eating skills. Children observe these behaviours and model them, that's how we learn as humans.

11. Because women are no longer in charge of foraging, food preparation, and the structure of eating skills, that void has now been filled by another entity - FOOD PRODUCERS and MARKETING.

Marketing relates to experts and scientists who tell us what and how to eat. Food producers also use advertising messages and images that trigger us to eat and overeat their food products.

12. These new role models are not serving us well. They teach our children to make the wrong choices. The important point here is that you can't not have a role model. Children are always going to model something because that's how humans learn.

Therefore we need to be very aware of who that role model is and what they are teaching our children. Marketers have taken this role and they market to children because then they get a customer for life.

13. We need to go back to being the role models for our children. This does not necessarily mean that the parent (male or female) needs to take this role. We can create role models like cartoons or characters or whatever else may be effective. The main point is that our children will model and we need to provide them with models that will be positive for them.

The Cost of Food

14. We can't emphasise enough how much of a price we paid for our big brains. A brain is extremely costly in the natural world. A big brain requires so many specific and rare building blocks. It also requires a huge amount of continuous fuel to run.

15. The other price that we paid for this large brain is that it is very vulnerable to toxins. This is particularly true during rapid development like you find in pregnancy and infancy.

Dr. Theresa thinks that this is why so many women have food aversions during pregnancy, especially early pregnancy when organs are forming. The main thing during this time is to avoid something that could cause a problem.

16. The trade-off cost wise in our evolutionary deal with Mother Nature, is that humans are supposed to use this big brain to find and prepare the highest quality foods without expending too much effort.

We also needed to learn how to avoid the toxins that can damage our brain.

17. Because of these factors, a great deal of time was devoted to food, much more than we do today. This effort and time devoted to food was the cost we paid.

In the modern world, food has become cheaper and cheaper and less thought or effort has

been directed towards getting it.

And in our current culture, what costs little is less valued.

18. If we are going to get back our wellness, we need to start with the mindset that food can't become so unimportant just because we can obtain it so cheaply.

That means that when you start to become a forager again and learn the skills of eating, initially the cost is going to be greater, either in money or in effort. As you become more skilful you can then find a variety of ways to reduce your money and effort costs. But you can't get to the point where food costs no money and no effort which is where we are now.

19. If we are going to change then we need a culture change. For example in France 40 years ago, they had a hygiene movement. This meant that children were to only eat at certain times of the day. They did not have constant access to food.
20. Like dogs we have become "free-feeders". If you put abundant food in front of a cat they will eat what they want and then walk away. If you put abundant food in front of a dog, they won't stop eating. We are doing the same thing. When there is food abundance, we just keep eating.

The solution is that we need to change our culture so we are not eating all the time. A simple rule is that you only eat at mealtimes and never outside of those times.

21. Before society will make changes, individuals need to make changes.

We can do that by learning the Skills of Eating.

Ep. 35 - Ask Dr. Theresa Podcast
Wellness Pillar #1 - Food
Part 6 - The “When” Skill of Eating

The Skills of Eating

1. We need a framework for the changes we can make to alter our lives in the way that we want. The framework that Dr. Theresa created for this is “The Skills of Eating”.
2. The Skills of Eating are lifelong behaviours that become habits once you practice them. This is not a traditional diet where you do something to lose weight and then stop once you’ve reached your goal.
3. In the modern world we eat like babies and each of these skills gives us a framework to build lifelong eating habits that automatically gives us the results we want in terms of our weight and ability to maintain that weight for the rest of our lives. The best way to explain this is what happens with our HORMONES.

Hormones

4. Hormones are little chemicals in our body that are produced by the endocrine organs.
5. Hormones are studied individually but that is not how they work in our body. All the hormones combine together to make a hormone “soup” and a change in one hormone creates a change in the “soup”.
6. Although hormones all work together and can’t be separated, for the purposes of learning Dr. Theresa will break these hormones up and talk about them in how they relate to the skills of eating.
7. There are hundreds of hormones however Dr. Theresa is going to focus on the ones that have the most effect on weight and fat stores. The most important hormones as it relates to this are insulin, leptin, ghrelin, cortisol, thyroid, and the sex hormones.
8. The big goal for this first skill is to enable our hormones to go from fat-storing mode to fat-releasing and fat-burning mode. The primary hormone in charge of this is INSULIN.

The First Skill - The WHEN

9. For the first 6 months of life, WHEN we eat is the only thing that changes. The only food babies get is human milk. Babies eat in one way - they suckle and swallow. There is no change in where to eat as in nature it’s always from mother. Therefore the first change that occurs is when to eat and this is the first skill of eating.
10. When a baby is born the umbilical cord is cut and the baby has to begin breathing immediately and constantly. This is not the same for nutrients. Humans are not required to eat constantly. We can eat intermittently because we can store fat in our bodies. We are an incredibly fat species for this reason. Even a slender woman has lots of fat stores.
11. In the modern world we eat like babies because we are grazing like an animal. We eat all the time and around the clock. This is not natural. We can go for significant periods of time without food because our many fat stores can be broken down as fuel. We don’t need to eat the way that we breathe.
12. At 6 months babies start to learn satiety. This is the brain learning how much to eat at this meal to last until the next meal. Babies start doing this in the evening where they “tank up” in

order to sleep during the night.

13. We call this a meal and it means we can do other things between meals. We don't have to graze all day. Nature gave us a dual fuel tank to service our brains around the clock. The brain can run on glucose and it can run on ketones. Ketones come from broken down fat stores from our body.

Food-Free Intervals and Insulin

14. To get our insulin under control, we have to begin with food-free intervals. You eat, then STOP, then eat again. NO SNACKS! Snacks are a marketing invention. There's small meals and big meals but there's no need for snacks.
15. To stop thinking about food all the time between meals, it very much helps to fuel our brains with ketones rather than glucose. Glucose is like throwing kindling on a fire, it lights very quickly and efficiently but it burns out quickly and then you need more fuel to keep the fire going. That's how glucose works. You get an initial burst of energy but then you need more glucose fairly soon after that.

A better strategy is to use some type of fat. Fat from our body, fat from food, or both. Using fat (ketones) as our fuel is like putting coal in the fire. The coal burns slowly and provides a constant fuel source for the fire. Similarly, when we fuel with fat we have a steady flow of energy which enables us to have food-free intervals. This is critical for the management of insulin.

16. If you eat all the time and use glucose as your fuel source, then your fat stores are not available to be used by your brain. The main reason is because INSULIN is present and insulin locks down the fat stores. In order to access those fat stores you need to reduce your insulin to zero. The easiest way to do this is by having food-free intervals.
17. The way that we've been eating (like babies) has made our hormones adjust in certain ways that tell us that it's very important we eat because we may not have any food tomorrow and will die of starvation. That's where many of us are today.

Snacking

18. Beverages are sneaky snacks. If you're drinking calories then insulin will be secreted and you'll remain in fat-storage mode.
19. Snack is a word that we invented. As you become an adult you should eat less often. No more than 3 meals a day.
20. Instead of having a snack between meals, you need to become like a parent to your brain. When a child comes in saying "I'm starving, I'm starving", a parent will say "I think you'll live until dinner. We'll eat then." That's what we need to begin saying to ourselves. We will eat when it's time to eat.

This is something we learn with other body functions. When babies need to go to the bathroom then they just go. Over time they learn to wait to go to the bathroom until an appropriate place and time. Similarly, you train your body that there is an appropriate place and time to eat.

Intermittent Fasting and Evening Eating

21. Fasting means consuming NOTHING except water or black tea/coffee. Adding a squeeze of lemon is okay if necessary. Drinking anything else or eating a bit of anything sabotages the

whole thing.

22. As well as insulin, other hormones can cause problems, especially in the evening. Therefore it's best to have a prolonged food free interval in the evening which we may call "intermittent fasting". We then stop this fast the next day with breakfast ("**break the fast**").
23. A good rule of thumb is to stop eating when it gets dark. Then don't eat again until daylight the following day.
24. Most people never have their insulin go to zero and that's what we're trying to accomplish. Stopping evening/nighttime eating is the easiest time to do this as it happens when you are asleep.
25. If you have no option but to eat later at night then you need to have your breakfast later in the day so you're still getting a period of intermittent fasting. An initial recommendation is to try and have a 12 hour period without eating.

Secondly, if you must eat late then don't eat much. If you eat a big meal then you'll stay in fat storage mode as insulin will remain present in your body.

26. There are many different ways to intermittently fast but the basic principle remains the same - the goal is to have a period where you are not eating. A food-free interval.

Breakfast

27. Do we need breakfast?

Children do as they are growing and learning. They require both glucose and fat stores as fuel sources because their energy demands are very high.

An adult can have breakfast but it doesn't need to be a big meal. Eating fats are preferable as they don't stimulate insulin. The most important point again is that you've had a prolonged food free interval at some point during your day.

28. Breakfast is a meal that was invented for people who had a physically demanding job that required a lot of fuel. Think farmers, labourers, etc. This would often be the biggest meal of the day. It was a planned and prepared meal because people could work better and longer throughout the day once they had breakfast.

But in the modern world we don't have these physical demands.

Recap

29. The "WHEN" of eating is the most important skill because insulin is the primary hormone which determines if our body is in fat-storage or fat-releasing mode. If we want our body to use our fat stores then we need to reduce our levels of insulin by having food-free intervals.
30. The 2 most important rules are (i) no snacking and (ii) no evening eating.
31. For some people this may take a bit of time because they are in a state called insulin resistance. This occurs when you've gone years and years where your insulin has never gone down to zero. In this scenario you've overwhelmed your system and insulin does not work the way that it should to let sugar into the cells.

If your cells can't be fed because of insulin resistance, then your brain thinks that you're starving to death (even when you're eating food). This will be reversed with food-free intervals however it will take a little time for your body to adjust.

32. To learn more about the WHEN skill of eating and hormones you can read Dr. Theresa's book "Evolutionary Eating".

Ep. 36 - Ask Dr. Theresa Podcast
Wellness Pillar #1 - Food
Part 7 - The “WHAT” Skill of Eating

The “WHAT” Skill Of Eating

1. The “WHAT” skill of eating is by far the most complicated skill to learn because we have a huge number of options available to us.
2. What is a “diet”? In our mind it is eating things that you don’t like to eat.
3. What makes humans different is that we can survive and thrive in all different parts of the world where different foods are available. This is not true for other animals, therefore it’s easier to understand what other species should be eating.
4. For most of human history food choices were restricted to your local environment. In the modern world all foods are available to us at any time of the year.

In addition, we have also created food forgeries and fake foods that trick our brains to eat in a way that is not beneficial to our wellness. More on that will come in the “WHY” skill.

5. From birth we like foods with sugar and fat. Human breastmilk has a high composition of these nutrients. We learn to like other foods tastes (like bitter for example), with many exposures to a particular food. This reassures our brain that the food is safe.

Another way we learn to like different foods is by what our mother ate during pregnancy and breastfeeding. During these times our brains are being introduced to these flavours which primes us to eat these foods in the future.

6. From birth we are “univores” in that we eat only one food - breastmilk. The breastmilk alters based upon mothers diet. This helps the baby learn what foods are available in it’s environment and as the baby grows up it will begin to really enjoy these foods because that’s what it’s been exposed to.

This process of learning food likes is specific to the region and community that the baby grows up in. If the baby grows up in a tribe that eats insects for example, then he will learn to enjoy the taste of insects. In contrast, most people in the modern world would wince at the idea of eating insects because they have not been exposed to that food culture.

The point being, your early exposure to food determines your initial food likes and dislikes. However humans can learn to like any food, it just requires more effort if you have no prior experience with that food.

7. A VERY important point is that in the modern world we THINK we have a huge variety of food choices. However a huge proportion of our food is derived from just a few crops. An example would be corn. Corn forms the basis of many foods as well as being the diet fed to much of the livestock. All these corn based foods are then disguised with chemicals to look and taste different than corn.

In nature the opposite is true. You could look at a tribe of hunter-gatherers and perceive their diet to be very limited because they eat a small variety of foods. However those foods are packed full of all the macro and micronutrients needed for wellness. Their diet LOOKS limited but in reality their diet is diverse in the area that matters most which is nourishment.

8. This “culture of food” takes many years to learn where you get to a place where you can make your own food choices without adult supervision. The modern day “parent” is the marketers and the food producers. Therefore we need to be aware of the foods they are offering us and we need to learn how to choose the best foods for our wellness.

Weight Loss Diets and Insulin

9. It helps us to look at the history of weight loss diets because it gives us an initial framework to start with. When looking at these diets, we want to pay attention to the hormone insulin. As we learned in our last lecture, insulin is the fat-storage hormone and we need to be very aware of how certain diets effect this hormone if our goal is weight loss.
10. For most of human history there were no weight loss diets. There was no reason to diet and very few people become overweight.
11. The first dieting solution to lose weight was - eat less (calories/fuel), exercise more. This works but it's almost impossible to maintain this strategy for a long period of time. This is why we see a lot of people gain their weight back very quickly after dieting.
12. Dietary FATS are the main food group that was targeted by initial weight loss diets. The way we look at food is we think that food that's outside our body will be the same as when it enters our body. Therefore we thought that eating fat is what made us fat. The logical conclusion is to eliminate fat from the diet and you'll no longer have fat on your body.

In reality, this is not how our bodies work. Our digestive system breaks all food down and hormones decide how it's going to be used. What makes us fat then is not the fats that we eat, instead we get fat when we eat more food than our body needs at that time. We call that extra "fuel" and our body stores it in our fat stores. Insulin is the hormone that is primarily in charge of this process. Certain foods make you have a lot of insulin and others produce just a little insulin.

13. Insulin is a very important hormone to understand in this process. If you make food choices that make your insulin go high, you won't just be in fat-storage mode. You'll also be hungry.

History of Weight Loss Diets

14. We started with reducing calories and although that can work it's not sustainable for most people as you remain hungry all the time.
15. The next stage was to look at food in terms of macronutrients - carbohydrates, proteins, fats. When tested in a laboratory it was found that carbohydrates and proteins have 4 calories per gram, and dietary fats have 9 calories per gram. Therefore in terms of calories, fats are more than twice as "fattening" than the other 2 macronutrients.

This lead to diets that were low in fat as dietary fats contain the highest density of calories. Another factor that was considered at this time was that a low-fat diet was proposed as being beneficial for the reduction of heart disease. Therefore this diet was used for both weight loss and health reasons.

A problem emerged as the reduction of fat from the diet was replaced with carbohydrate. This "low-fat, high-carb" diet resulted in a lot of insulin. Carbohydrate breaks down to sugar in the blood which causes the secretion of insulin. The more sugar that's in the blood, the more insulin is released to deal with that sugar. This sugar is then stored as fat.

If insulin is in your blood all the time, your cells will start to ignore it. The exception is fat cells who always welcome insulin. You could be eating food but still be hungry as that food is not getting to your cells, it's going to your fat stores. Therefore the only way to maintain this diet is to be extremely strict with your calories and to live in hunger most of the time.

The solution again is to bring your insulin levels down to zero and that is very difficult to do when you are eating a low-fat, high-carb diet. Once this was understood another diet based on low-carbohydrates was introduced.

16. Low-carb diets restrict your carbohydrates instead of restricting your fats. We had demonised fats but not all fats are the same. Most of the dietary fats that we eat in the modern world come from vegetable seed oils - corn oil, sunflower oil, etc. These are food forgeries. They are the same calories per weight as natural fats, however they act completely different in our body.

Eating a lot of these synthetic fats cause a lot of problems. Research confirmed these fats were detrimental to our health, however we took that to believe that ALL fats are detrimental. This is completely inaccurate but it was the science of that time.

The result was to try diets that were low-carb, low-fat, and high protein. This worked for some but our bodies cannot store protein. If we eat lots of protein our body converts it to a form of sugar which means we still have some insulin present when we eat too much protein.

This release of insulin is much slower than high-carb diets however and the compliance is often better as there is less hunger/food preoccupations on this diet. That being said this is still a “diet” and most people cannot stick to a restrictive diet for a long period of time.

17. The next diet that has become popular is the keto diet. A keto diet is high-fat and the result is that your insulin levels remain low since fat does not stimulate insulin. Another benefit is that a lot of people do not feel hungry on the keto diet because of the low insulin.

One place where people get into trouble on this diet is when they have some sort of “cheat/treat” that puts their body back into sugar-burning mode. It can be difficult to bounce back to fat-burning mode (ketosis) after that.

18. Dr. Theresa does not recommend against any of these diets. What’s important is to find what works for you. “Diet” means “way of life” so you need to find what you can do for the rest of your life.
19. If you have been on weight loss diets in the past, then you have damaged your body in some way. It creates a shift in your body towards protecting fat stores as your body no longer trusts you. The hormone in control of this is called LEPTIN and Dr. Theresa will explain it in another skill of eating.

The Other Issue - Micronutrients

20. When you have excess fat in your body, the most obvious reason is that you are eating too much. When you eat too much fuel (calories) then your body will store that as fat.
21. Another major cause of obesity that is not talked about as much is micronutrient deficiency. When you’re under-nourished, your body will give you cravings to eat in an attempt to get those micronutrients. This is driving our appetite and hunger signals.

An example might be that your body gives you cravings to eat butter because of the micronutrients contained in that food. If you eat a food forgery, something like margarine that looks and tastes like butter, then you will still end up hungry because you are not giving your body what it actually needs.

22. Eating the micronutrients your body needs will naturally reduce hunger cravings. Animal food derivatives have a high concentration of building blocks that you can get from eating small amounts that are very high quality. Low quality can be detrimental to your weight and wellness.
23. A lot of micronutrients have been removed from food because of food processing. There are micronutrients we are still not even aware of that we can only get in natural food.
24. Insoluble fibre is completely indigestible and is like eating a piece of paper. It gives us a sense of bulk but does not have any nutrient value.

What we need is the soluble fibre from our fruits and vegetables.

25. The way we progress is to devote more time and effort to food. We educate ourselves about our food, where it comes from and what our food ate. For plants that means the soil that it grew in and for the animals it means what diet they ate.

26. With animals there are 3 basic animal products. Meat/fish, eggs, and dairy.

Dairy is milk from an animal is not designed for human development. It is not directed towards facilitating brain growth and development. An example is cow milk which is designed for growth and bulk to get a baby cow to grow into an adult cow in a short period of time. But it is a complete food and it is quite nourishing. The important point is that the nourishment is in the FAT in the dairy so low-fat is not the way to go to get nutrients.

Eggs are the same. A chicken who eats a natural diet will provide a multitude of micronutrients. The nutrients are in the fat which is the yolk, not the white. This is the most cost effective way to get the highest quality animal based nutrients.

Meat is where we have our biggest problem. The main meat we eat is muscle. But we are not made of only muscle. Chicken breast, steak, pork chops are all examples. These have micronutrients that help you build those same organs.

What we eat is broken down and those nutrients have the same composition as what is in our bodies. Eating muscle meat will mainly nourish our muscles for example.

With this in mind, we need to eat nose to tail. If we want our organs to be well nourished, we need to eat those same organs. Eating liver nourishes our liver, etc. In summary, we don't need much muscle meat from animals. What we need is the best fat and highest quality organ products.

Ep. 37 - Ask Dr. Theresa Podcast
Wellness Pillar #1 - Food
Part 8 - The “HOW” Skill of Eating

The “HOW” Skill Of Eating

1. In the “HOW” skill of eating there are a lot of small changes you can make in your environment that will have positive effects in your eating behaviours.
2. Babies don’t change what they eat until they learn to change HOW to eat. In the first 6 months of life, a baby will drink human milk from the breast. At about 6 months, a baby is preparing for speech and their anatomy shifts to facilitate that. One cost we humans have to pay for this is that we are at much more risk of aspirating.

Babies learn skills at this time for managing their food and liquids so that air goes down the right way and food/liquids go down the right way as well.

3. In the modern world newborns eat 2 different ways. They drink from the breast and/or from the bottle. The mechanisms of each are very different. The breast provides the perfect food (human breastmilk), but it also provides the perfect dispenser (the breast).

All mammals have different types of nipples and teats that are all suited specifically to their offspring to help with the growth and development of that species. This is explained in more depth in Dr. Theresa’s Natural Breastfeeding Program.

4. One of the main differences between breastfeeding and bottle feeding is what Dr. Theresa calls, “The Original Portion Distortion”. Humans experience the world very visually and therefore we tend to eat with our eyes, not with our stomachs.

If a baby breastfeeds it does not use its eyes to decide when to stop eating as it can’t see the milk inside the breast. Therefore babies stop eating when they feel full.

Bottle feeding is much different because now the baby does not stop eating when they feel full, instead they stop eating when the bottle is empty. They use their eyes to tell them when to stop, not their stomach. This behaviour of learning how to eat then becomes the norm growing up. Eat until your plate is clean, eat until your container is empty, eat until there is no food left, etc.

5. If a baby learns to eat using their internal body cues then they learn “satiety”. Satiety is the brain and body learning how much you need to eat at each meal to last until the next meal. Then as you approach your next meal your body releases the hormone “ghrelin” and that is responsible for the rumbling in your tummy - it’s your bodies way of reminding you that you need to eat soon.

This is the first skill we need to learn in the “HOW” of eating. As babies we learn what it feels like to be full and we learn satiety which is how much to eat to last until the next meal. We call these “internal cues”.

6. “External cues” are also very important. Since we eat with our eyes we can also use this to our advantage. For example, the size of our plates tell us what a portion is. A 9” plate full of food is much different than a 12” each plate full of food, yet our brain thinks they are the same since we consider them both to be ONE portion. Our plates have become much larger over the last few decades and because of that, we habitually eat more.

A simple solution is to buy smaller plates, bowls, and glasses. Without having to think about anything, you’ll automatically eat less because we eat with our eyes, not our stomachs. To learn more read the “HOW” skill of eating in Dr. Theresa’s book - Evolutionary Eating.

7. After 6 months a mother will start to introduce solid foods into her babies diet. These foods are chewed up or puréed for the baby in advance. This helps the baby learn how to manage foods without choking.

In the modern world, much of our diet is like these baby foods for example hot dogs, hamburgers, and french fries. All these foods are ground up, just like you do with baby food. They are nothing like what the original meat would have been.

If you eat normal natural foods, you need to chew those foods. This is important because chewing slows you down and it allows your brain the time necessary to process how much you are actually eating. If you eat modern food which is processed or what we may call “pre-chewed”, you can swallow it down really quickly before your brain has any time to register how much you’ve eaten and how satiated you are. Therefore it’s extremely easy to overeat when you eat food that is like baby food.

8. Modern food has changed how we eat. McDonald's french fries are an example. McDonalds tried to get people to eat more bags of french fries but they were unsuccessful as people did not want to be seen as being gluttonous by getting more than one serving. To overcome this, McDonalds started to offer different sizes up to “super size”. This then became the new portion size. People bought it because it was still just one bag of fries.

Another part of this was creating a french fries formula that almost dissolves in our mouth which speeds up how we eat and the amount we eat.

9. How we prepare food changes how that food is processed in our body. If we grind food or cook food, you put on more weight from it. In the laboratory raw meat and ground-up meat that has the same “calories”, however it doesn’t have the same effect when it’s in your body.

Therefore the things that we do to make foods easier to digest, like baby foods, make those some foods more fattening. We have manufactured our food to be easier to chew. an example is grain-fed beef. Grass-fed beef is not as tender and is more difficult to chew which is beneficial in many ways. We are supposed to chew our food and many important things happen when we chew.

10. Don’t drink water when you’re eating. Chewing produces saliva which is the start of the digestive process. If you drink water when you eat then all you’re doing is washing your food down so you can eat even faster and you’re diluting your digestive juices that are perfectly designed to digest your food.

If you want to drink water, it’s because you don’t want to chew. If you were chewing, your body would make plenty of water with things to help your food be digested properly. This also helps signal hormones that tell you when to stop eating.

11. Our current eating culture has many negative effects. We eat out of containers, we eat anywhere and everywhere, we eat really fast and so on. It could be therefore said that we’re not even eating like babies, we’re eating like animals.

12. The main lesson in the “HOW” skill of eating is to SLOW DOWN. Eat meals. Sit down to eat your food. Put your food on a plate, preferably a “9” plate. Use utensils. Chew your food and don’t drink while you’re eating.

Eat more mindfully and spend time on your food. When we spend time on our food by sourcing it, preparing it, and eating it mindfully, then we feel grateful for our food. This all contributes to our food SATISFACTION and the joy we get from eating.

Ep. 38 - Ask Dr. Theresa Podcast
Wellness Pillar #1 - Food
Part 9 - The “WHERE” Skill of Eating

The “WHERE” Skill Of Eating

1. What Dr. Theresa talks about in relation to the “WHERE” skill of eating is how we eat in relation to other people. This includes people who are physically with us, and how we are eating with other people in terms of what has happened with food over the whole globe.
2. The “WHERE” is some of the easiest changes you can make in regards to developing healthy eating habits.
3. Going back to how we eat like babies... A newborn baby can only eat in one place biologically - at their mother. This is the initial “WHERE” of eating. A newborn cannot control their body and the mother must assist in its feeding. After a few months and after the babies nervous system matures, the baby has more eating options available and weaning starts.
4. One of the ways that we measure accomplishments of childhood is what babies start to do with their eating as they grow up. The “WHERE” involves a lot of the other social skills and learning skills. You are not allowed to come to the adult eating table until you have developed these skills. It’s a big right of passage.
5. For the “WHERE”, we need to “fence in and frame out”. What that means is to be more mindful of your eating practices and having it be a meal at a designated eating place. This brings mindfulness to your food. In the modern world, we don’t value this right of passage of eating at the table. Now we are eating everywhere and anywhere.
6. In hunter-gatherer societies you needed a communal effort to prepare a meal. If there was food abundance, it was celebrated however this was not an everyday occurrence. This is much different in the modern world where we are “pigs in paradise”. Anything that we would have ever had that was special is available almost instantly now.
7. When humans eat with others at a designated eating place, it puts restraints on our behaviour. In this environment we don’t have to make conscious denial of temptation because the culture dictates how we eat. An example is potty training. When we have an urge to go to the bathroom we don’t just go, we wait until we can go to the bathroom. Eating should be the same, we should eat when and where it’s appropriate to eat, not all the time and whenever we want as we do in our current culture.
8. One of the most important factors of having a designated eating place is that it reduces your stress hormones by taking away moment to moment choices that you would otherwise have if you were to constantly think about when and where you were going to eat food.

When our stress hormones are high, then our brain releases more stress hormone to deal with the present stress. This has negative weight and health consequences. It changes our weight distribution and puts fat around our viscera. This is emergency fat that your brain thinks your organs will need instantly. However this fat is not supposed to be there for a long period of time and therefore it becomes inflamed.

This inflamed fat does not send out normal hormonal messages. Leptin tells your brain how much fat you have to use as fuel. Inflamed fat does not release the normal leptin report to the brain, therefore our brain thinks we are starving even when we have plenty of fat stores.

This inflamed visceral fat creates all types of problems with our vital organs which it’s supposed to be saving, but instead it’s creating this whole atmosphere of inflammation that effects our health, blood vessels and other hormones. It’s a real long term problem.

The History of our Food Supply

Stage 1: Hunter-Gatherer Societies

9. For millions of years we were hunter gatherers - small groups of nomadic people. You didn't settle in one place as you had to go wherever the food was. The food changed day to day and season to season so the diet was extremely varied. We hunted and gathered a wide variety of plants and animal substances. For a lot of our existence we just ate those.

Then we got fire which introduces cooking, but we were still hunter-gatherers during this time.

Stage 2: From Nomads to Settlers

10. 10 - 20 thousand years ago we moved into the 2nd stage of eating which was the dawn of agriculture. Agriculture meant that you planted something or you tended something. What we started to do in agriculture was caretaking of things that were already there (arboreal) like apple trees.

This was an enhancement of the hunter-gatherer because the food was still from the earth but it was more reliable. Hunting was hunting wild animals and using them as a food source. That then transformed into domestication of some animals and using them as livestock - either to eat the animal or to use a product of the animal like milk or eggs. This was one of the origins of agriculture.

Stage 3: Beginning of Farming

11. You can't be nomadic and farm. The idea was that if you could farm food then you could be sure there would always be food available. Unfortunately that is exactly the opposite of what is true because all kinds of food don't fail at once most of the time, but a crop can certainly fail for a lot of reasons. If you only eat one crop then a failure of that crop means no food.

The way of raising crops - planting, staying, working the field, reaping, storing, selling... these are all the basis of civilisation because it meant that few people could be tending the food supply and other people could do other sorts of things.

As this progressed, cereal grains became more important all over the world. Rice and millet in Asia. Wheat, oats, barley, and rye in Europe. Corn in the new world. During this stage the human diet became far less varied because of the reliance on these grains and health really started to diminish.

Deficiency diseases started to become common.

Stage 4: Ancestral Farming

12. Humans combined farming with food from their local area and this introduced variety back into the diet. As this occurred, health improved. This is how we ate until relatively recently.

Stage 5: Industrial Era and Age of Machinery

13. As technology progressed, one person could now make enormous quantities of food. An incredibly important invention that came about was to find how to fix nitrogen in soil. Soil that would not have produced could now produce using a cheap method of fertilising.

Now you didn't need to rotate crops and practise animal husbandry. Once you put the chemicals into the soil, the soil would produce. This progressed to hybridisation and genetically modifying the foods to enhance production so you could keep getting more and more yield for a small area.

At the same time, we began to disguise our food. Food became processed and packaged and prepared. We think that our modern food is different but it just looks different. Most people are

eating less than 10 foods in their diet but they are presented differently which gives us the illusion that we're eating a varied diet. For example a pizza and a hamburger look very different, but the actual ingredients are very similar.

Stage 6: Producing the Most Food for the Least Cost

14. We've gone from hunter-gatherer societies, to cities, to now a global society. Because we are this global society we have this desire to feed the hungry all over the world. In areas that were much farther behind like Africa, where the animals could not be domesticated and the soil is not particularly hospitable, we are now able to start engineering foods that can grow there but it uses up the water very fast which creates a lot of problems.

With transport we can also send food however this creates the problem of trying to feed the most amount of people with the least money. That is the stage we are in right now.

15. With this new way of producing food we see that all these different countries are rocketing to modernity very quickly. They go through the stages much more rapidly.

A very common food that we have exported all around the world during this stage is vegetable seed oils. These fats have been substituted into our diet and we have removed the natural fats we would have gotten from having a more varied diet from animal fats.

16. Even the animals we eat are the same because we farm them the same way we farm the land. We breed them as fast as we can with the same diet.

Our Current Predicament

17. It used to be that you would never eat other cuisines. You had Italian food or Mexican food or Chinese food. These cuisines had a list of very different ingredients and flavours.
18. Now in the modern world you can eat as if you had access to any place in the world, instantly. We can eat things that we would never had eaten our entire lives. We would not even had wanted to because our food tastes would have developed to enjoy the local cuisine.

This taps into our desire of novelty. We have evolved to desire novelty because that ensures that we have variety in our diet. In the modern world we satisfy that desire by eating different cuisines, but we choose the same foods that we like from these different cuisines. So although the food tastes different, the ingredients we eat are very much the same and therefore our diet is still very unvaried.

19. We are in this 6th stage right now and the transitions have been very rapid. All the rest of the transitions have taken a long time but the last stage has come upon us in a very short time and extreme way.

This stage is now everywhere in the world and all at the same time. As this diet has made its way around the world, so have the diseases that follow it. There is a global economy dependent on it and there is no easy way of escaping this. We are in the process of exhausting our water and soil.

20. In the next stage we need to move back to more local eating with an emphasis on variety. The first thing each individual needs to do is to make a commitment of time and money to diversity in their diet. The easiest way to do that is to eat food that was grown or raised in the most natural state you can get it.

Ep. 39 - Ask Dr. Theresa Podcast
Wellness Pillar #1 - Food
Part 10 - The “WHY” Skill of Eating

The “WHY” Skill Of Eating

1. The biggest problem with the “WHY” is that there is no skill we can learn. The “WHY” is more about how the world has changed to influence why we eat.
2. Food is now produced, prepared, and packaged all in a way that we prefer most. Therefore we are motivated to eat more and more.
3. We evolved into human beings to have this very large brain that’s different to any other animal and it’s supposed to be used to help us find, prepare, and love food. Our hormones reward us with feel good chemicals when we eat because that is important for our survival. In a natural environment this works well as food is not as abundant. In the modern world food is all around us all the time and this means we are constantly being triggered to eat.
4. A big part of the “WHY” is what people around us are doing because of how we are wired socially. We do what other people do. This will be discussed more in the “WHO” skill.

Why Babies Eat

5. You might think that babies eat because they are hungry but that is not the case. When a baby is born, nature gave babies all they need and nothing else. They have a cry that cannot be ignored. Babies cry because they would not survive without around the clock attention and care.
6. Babies are born in a premature state compared to other primates. The baby human is born extremely helpless. They are not thinking, they are not making decisions, and there is no voluntary movement. All movements are reflexive movements.
7. Human babies are extremely fat compared to other primates. The reason is that the brain grows very quickly after birth and it needs constant fuel. Babies are born very fat and during infancy they put on even more fat. This is to ensure fuel will always be available for the brain. Mothers milk provides this fuel as well as the building blocks for growth.
8. Babies cry and then they are fed. We think they cry because they’re hungry but that’s not accurate. Hunger is something that a baby learns over time. When babies cry and then eat, they feel relief of something that they didn’t understand or know. A baby may be feeling uncomfortable but it doesn’t know that those feelings are “hunger”. A baby starts to learn that food makes pain go away and it creates pleasure. This learning occurs right after we are born.
9. This removal of pain and stimulation of pleasure when we eat never goes away throughout our lives. Therefore for many of us, our “drug” of choice is food. Food makes bad feelings go away and when you don’t feel bad, food can make you happy. Most of us do not think as food as a drug, but in our body food releases many chemicals similar to many drugs.
10. Certain foods give us more drug-like effects. Sugar is an example. In the natural world sugar is not that abundant. In the modern world, we have access to sugar all the time. When we continue to eat that sugar we become addicted to it like you would any other drug. Just like any other drug, the removal of drug-like foods will produce withdrawal effects.
11. Food is now manufactured and designed to stimulate these drug centres in our brains. Another drug that our brain seeks is novelty. When the brain sees many food choices, it wants to have access to all of them. This means we get even more cues to eat, eat, eat.

12. Putting all of this together then, **why do we eat?** As babies we learn that food makes uncomfortable feelings like hunger go away. Food removes pain and it gives us pleasure.

Food acts in the brain just like any other drug. We need food for our survival and our brains need a constant supply of energy. When there is food available, it is painful to NOT eat because that would not be normal throughout our evolutionary history. We lived in times of feast and famine and when food was abundant we would always have stocked up our fat stores.

All of these processes served us very well throughout our history, but in the modern world we have all the foods available to us all the time. Therefore we have to fight our own biology in order to not eat. It's extremely stressful and taxing to do this, and that's why so many of us are struggling right now.

13. If you are addicted to any other substance then it's possible to remove that substance entirely. With food, this is not possible as we all have to eat for our survival. Therefore food addictions are the most difficult addictions to overcome.

The Modern Food Environment

14. In the natural world, we were not triggered to eat all the time because certain foods were simply not available all year around. In the modern food environment the opposite is true. Food is everywhere and marketing/advertising images are showing us food all the time. We can't escape it and we can't escape the triggers.
15. Food producers have refined their formulas to make food more addictive and "hedonic" and less expensive. The modern food environment is like being a kid in a candy store. We have cheap drugs available to us whenever we want.
16. We have been studied as a species and all our likes are represented in the foods that are presented to us. For example we enjoy certain textures and food experiences in our mouth (see the book "The Dorito Effect"). Food manufacturers have had decades and decades to study this and to try different formulas of what we like. This means that our modern food has been designed to be extremely pleasurable.
17. Because food is essential to our survival, the brain gives our mind the thought that we should eat. When we think we are making up our mind or are choosing, we're actually changing our mind because our mind already voted. It voted on getting what the brain and the body needs. This is present all the time but we are not aware of it all the time.

For example if you are around food all the time or triggers to eat like food images or food smells, then your mind will give you a thought that "it's time to eat". In order to not eat you need to change your mind which requires willpower and effort.

18. Some people are triggered more than others. Throughout our history this was managed by our culture - eating behaviours and food rituals placed constraints on how much we would eat. In this environment you don't feel deprived because everyone is eating the same way. Since humans are a very social species, our brain motivates us to do whatever everyone else is doing.

In our modern food environment these restraints no longer exist. We are encouraged to eat anywhere and everywhere and all the time.

19. The only constraint that we have in our society is that we shame overweight people when we see them eating in public. However with cheap prepared food, we can all eat alone and in secrecy. Therefore many of us end up doing that, we eat alone and in secrecy and although this may provide an initial hit of pleasure, the end result is pain.

20. There is no skill we can learn for the “WHY”. We can’t change our current food environment. We live in this “fat habitat”. We have “asthma of the appetite”. Someone with asthma is surrounded with air but they still feel they can’t get enough. It’s the same with food. We live in an environment with abundant food but many of us feel we can never satisfy our appetite.
21. Where we can make immediate changes is in our other skills of eating. We choose the ones that work the best for us and we build on those skills.
22. Another change we can make is to find other “drugs”, other things that give us pleasure and removes pain. Food has filled that void because it requires no effort, is extremely cheap, and provides many drug-like effects. If we want to change our behaviour of using food as our drug of choice then we need to find other pleasurable activities to replace it.

Ep. 40 - Ask Dr. Theresa Podcast
Wellness Pillar #1 - Food
Part 11 - The “WHO” Skill of Eating

The “WHO” Skill Of Eating

1. The “WHO” of eating involves so many more things than just the food. It’s a good place to start to talk about our need for social relationships.
2. Because of our ability to gather, store, and prepare food to eat together in different kinds of groups, it is the centrepiece of everything that is cultural.
3. In the beginning who do you eat with? No one as you are simply fed. All humans grow inside their mother and there is no social relationship in this initial 9 months of development. The food does come from the mother but there is no sense of “WHO” at this time.
4. After the baby is born and the umbilical cord is cut, the whole world for a baby in terms of food would have been the mother. That’s where the milk is, that’s where the warmth is, that’s where the hormones take place by mutual gaze. Everything that the newborn needs is on the mothers body. The “WHO” and the food, the love, and the wiring of the brain all starts in this same safe place.
5. Unlike most other species, humans are extremely dependant on others for their food supply for many many years. Therefore the “WHO” and food are very intertwined. From a very early age we connect the pleasure of food with the pleasure of being with other people while you’re eating.

This doesn’t go away throughout life. This can manifest in loneliness when you eat alone. It’s the reason why you need to watch T.V. while you eat, as that gives you a feeling of eating with someone. We also try to satisfy this social eating need by interacting on our phones while we eat.

6. Another really important part in the “WHO” of eating is how it helps a child develop socially. To be human is to learn how to become a part of the conversation. As children grow they start to branch out and eat with other people and that’s when conversation and social interaction is learned. It takes a long time to develop this skill and sharing food and food preparation is the perfect environment to do that.
7. The “WHO” is not just who we eat with, it’s also who brings us our food. For most of our history this was very consistent. It would have been mother - family - community. Then you stayed in that community within that food culture for the rest of your life.
8. For most of our human history our eating was intertwined with foraging, preparing, and sharing food. This is very different from animals. They don’t forage and share. They forage and eat what they find at that time. Animals might eat in a group but they don’t gather, prepare and share food like humans do. These traits are uniquely human.

In the modern world our food is completely prepared, there’s no need to be in a group, and even very young children can use modern technology such as microwaves to make their own food.

Today, people often eat alone, which is closer to animal behaviour than human behaviour.

9. Nature intended us to learn about being social, learn about our existence, learn about our health and mental wellbeing, all with other people through the medium of food and over a long period of time. That no longer exists in our current food culture and it has left a vacuum that has been filled with a lot of things that are creating a lot of social, emotional and mental health problems that we see today.

Human beings need air to breath, water to drink, food to eat. Another need that we have is **meaningful** social interactions with other human beings.

10. In this series we've spent a lot of time talking about food forgeries. These food forgeries satisfy our hunger but they don't nourish us. In the modern world we have developed technologies that are social forgeries. We are attracted to them and they seem to fulfil our needs but just like the food forgeries, they leave us undernourished.
11. We are tremendously effected by the people who we eat with. Your eating habits will tend to be very much like the people you eat with. We want to eat what our social circle eats because that's our human nature. This is one of the reasons that diets are so stressful because a diet makes you eat differently than other people.

We want to eat like the people around us because to our brains, that means survival and safety.

12. "The Global Who" - We no longer eat with the people we know or are physically present with. With modern technology and "social" media we eat with the whole world all the time, but since these are not meaningful face-to-face relationships, they do not nourish us.

Wellness Pillar #1 - Food

Part 12 - Quick Start Strategies

The following quick-start strategies are taken from Dr. Theresa's book "Evolutionary Eating".

These provide a great reference guide of the skills presented in this podcast series.

The "WHEN" Skill

- Eat regular meals.
- Eat no more than 3 meals per day.
- Try to eat on schedule; it will optimise hunger hormones faster.
- Don't eat for at least 2 - 3 hours before bedtime.
- Don't snack.
- DON'T SNACK.

The "WHAT" Skill

- Learn the difference between real food and food forgeries.
- Shop on the perimeter of the grocery store; that's where the real food usually is.
- Avoid sweets, except for planned-in-advance special occasions.
- Limit your carbohydrates to decrease insulin resistance; this means avoid starches, like bread, pasta, or cereal.
- Keep cutting back on processed food.
- Avoid industrially produced oils and products that use them, such as salad dressings and processed food.
- Replace "vegetable oils" with healthy oils and fats, like olive oil, butter, and coconut oil.
- Eat colourful, fresh vegetables, preferably organic.
- Eat meat products from animals raised in a humane and healthy way; remember you are eating "what they ate."

The "HOW" Skill

- Eat your food from a 9-inch plate that has a boarder. (Un-supersize your cutlery, bowls, etc., at the same time.)
- Serve up your plate in the kitchen so you really have to consider whether you want to have seconds.
- Make a mental speed bump halfway through your meal, "Do I want to eat more?"
- Chew your food, and choose food that requires chewing!

- Use utensils and (audible gasp) “table manners”.
- Use tall, thin glasses.

The “WHERE” Skill

- Eat at a designated place at home, preferably a table.
- When you eat outside the home, also choose a designated spot.
- Make, and enforce, Food-Free ZONES, like the car, and the bedroom.
- If you eat in front of the TV, treat it like a meal, not a munch out.
- Plan and prepare your food - restaurants are tricky unless you are a skilful eater!
- Have 2 emergency meals on hand - for emergencies!
- DON'T DRINK YOUR FUEL! There are no caloric beverages in nature.

The “WHY” Skill

- Recognise when a binge is building; distract yourself.
- Learn a new skill that you can practice when you are bored and hungry.
- Avoid mindless eating - keep food out of sight.
- Habitats make habits. If it's in the house, you'll eat it ... get tempting food out of the house.
- Don't beat yourself up for backsliding. This is a program for life. Life is full of stumbles. Life goes on.

The “WHO” Skill

- Identify and avoid saboteurs, especially at mealtimes!
- Pretend you are eating with a virtual companion who has excellent food skills.
- Understand that all humans are susceptible to media images that deal with people and eating behavior.
- Prepare a list of canned excuses like, “I have a food allergy.”
- Even better, practice saying aloud, “No, thank you. I don't like to eat when I'm not hungry.”

Section 3

Wellness Pillar #2 - Movement

Wellness Pillar #3 - Sleep

Wellness Pillar #4 - Social Interaction

Wellness Pillar #5 - Developing Identity of Self

Ep. 41 - Ask Dr. Theresa Podcast Wellness Pillar #2 - Movement

Movement vs Exercise

- Movement is the pillar that is least understood but perhaps easiest to correct.
- Most people think of movement as exercise. However exercise should be looked at as a supplement, similar to taking vitamin supplements if your diet is inadequate.
- Exercise is challenging voluntary movement we do for a variety of reasons including improved health, weight management, body composition, etc. It has a defined stop and start.

How our Movement Behaviours Changed

- Our DNA is to be hunter-gatherers which included a lot of physical activity to meet our basic needs - nutrition, social connection, and more. The drive to move included many of these rewards.

This type of movement was not exercise and it was not a supplement. It was simply constant daily physical activity that was a normal part of life. This movement is not something you need to think of or schedule into your day. It's just what you do.

Examples include walking, play, working, and anything that uses your physical body to interact with the world around you. **The single main characteristic of this movement is the lack of being sedentary.**

- When humans transitioned to settlers, we developed a need to specialise our work activities. A lot of our work became physical labour which is more similar to exercise than movement. Physical labour is timed, it's physically demanding, it's something you have to do, and it's not inherently rewarding.

- In the modern world, many motivations to move have been eradicated. For example, we have food on demand and we can stimulate our social connection needs via technology, all without moving.

Many studies on rats have demonstrated this phenomenon. At baseline, rats are very motivated to move. However, if you set up a condition where rats can press a lever that stimulates their neurologic reward system, they will stop doing all the normally motivating movements - eating, having sex, playing, etc.

With our modern technology, humans have invented many mechanisms that act similarly to the stimulants given to rats in these studies. Our reward centres are being stimulated without moving or doing much of anything.

- Our daily jobs have also changed. Many jobs in the past contained some element of physical movement. Modern jobs are primarily sedentary.

The Seeking Sense

- Every animal including humans have "seeking senses". The seeking sense is what creates an inherent desire to engage in your environment.
- Although all your senses are integrated, the human seeking sense is primarily visually dominant. Other animals are primarily auditory or olfactory dominant in how they perceive and are motivated to move within their environment.

- We still have these seeking senses within us, however they are being stimulated by other mechanisms, similar to the rats pressing the drug levers.

TV, social media, etc. is extremely convenient, rewarding, and addictive. These technologies can stimulate our reward centres and dampen our seeking sense and desire to move.

- Play has also become a victim to technology. Children in particular have a very strong desire to play, however technology is circumventing that desire. As a society we understand that children require play to develop, however we have substituted this need with organised sports.

The Negative Effects of Sedentary Sitting

- We have become sedentary. In addition, we are sitting. When you sit, you train your body to sit more. Then it becomes effort to not sit.

While sitting, we are also staring at some type of screen that is highly stimulating. **Staring removes our seeking sense.** Your brain then becomes a sitting, staring brain. This constant reinforcement of the sitting, staring brain overwhelms our desire to do anything else.

In a natural environment, this would not occur. Humans don't sit and stare at nothing for long periods of time. Our brains need stimulation. In a natural environment, this need would motivate us to move.

- For women in particular, sedentary sitting has a tremendous impact on body composition and weight. Hormonal changes such as insulin resistance can develop with sedentary behaviour. An easy remedy is to have a short walk after your meal. This will change your insulin sensitivity, resulting in improved body composition.

- There are many negative postural changes that occur due to prolonged sitting. These postural changes can result in discomfort and pain while moving, thus reducing the motivation to move even further.

Helpful Changes You Can Make

- Movement is different than exercise and there are many reasons why it's important for your basic health. Basic physiological markers such as inflammation levels and mental diseases like depression are all improved drastically with movement.

- The first change is to limit your screen time if possible. Screen time is the biggest drug we have right now. Many people experience withdrawal symptoms with reduced screen time which is a marker of addiction.

- The second change is to look at what you do over the course of the day and replace an hour of sitting with an hour of walking of some kind. It can be broken up or done all at once.

Be present during your walk, not zoned out with music. Music is similar to another drug that turns off the seeking system. Being zoned out makes your walk another form of exercise, i.e. something that you just have to do.

Train yourself to look around and become engaged with your environment. If you do need to zone out to music or another stimulation source, that is at least better than being sedentary. Consider audiobooks or podcasts as they can act as substitutes for conversation while walking. This makes the activity a bit more natural, as if you were walking and talking to someone.

- In general, exercise is hard to do because it's not a part of the habitat we live in. Try to change your environment so that more movement is built-in to your daily life.

Look at periods in the day where you are normally sedentary and devise a system where you can

be less sedentary for that time.

- Have a reminder to move more. This is where technology can help, by having movement trackers/reminders.

- Technology has created a substitute for moving. We need to reverse that now and create a substitute for technology that is equally as rewarding.

Ep. 42 - Ask Dr. Theresa Podcast Wellness Pillar #3 - Sleep

Sleep and Wellness

- Sleep is mysterious. Although all animals sleep, we don't know why.
- Sleep is a pillar of wellness because there is so much evidence that correlates a lack of quality sleep with adverse health markers.
- Sleep is the easiest of the five pillars of wellness to neglect because most people are completely unaware of how important it is. Humans are the only species that deliberately and intentionally restrict sleep because we have other things we want to do.
- Almost everybody is sleep deprived and has a sleep debt.

Sleep and Performance

- Sleep is restorative and it is also the time where the brain processes and consolidates information and learning.
- During sleep, information is transferred from short-term to long-term memory. Therefore sleep has a profound impact on cognitive performance.
- A study on typing and piano playing demonstrated these performance enhancing effects of sleep. One group practiced in the morning and were retested 12 hours later in the evening. In this group, there was no significant improvement in performance.

Another group practiced in the evening and were then retested the next morning after sleeping. This group experienced a significant improvement in terms of performance against the first group.

Conclusion: Practice (+ sleep) makes perfect.

- Throughout the day chemical waste products are being produced in the brain as a by-product of general functioning. When we sleep, these waste products are flushed from the brain.

Sleep Needs

- In general there are two sleep types - morning larks or night owls. However modern civilisation has standardised everybody into a daily schedule regardless of your sleep type, e.g. the 9-5 workday.

Therefore, for a long part of our cultural history, we have needed to wake up even if we required more sleep.

- Adolescence is a time when sleep needs change drastically. Most people during this time become night owls. This is an example of how your sleep clock or circadian rhythm is built into your DNA.

- How much sleep do we need? Since most of us are sleep deprived, it's likely you need more than you're getting unless you're oversleeping due to an underlying disease.

Sleep, Seasons, and Artificial Light

- The invention of artificial light and access to abundant food mimics the conditions of summertime which in turn signals to our DNA that we're in a time of high productivity.

This increases our arousal and wakefulness which makes it more difficult to get the sleep we need. Contrast this to long winter nights with no artificial light. In these conditions we naturally have less wakefulness and arousal and therefore sleep more.

- In our modern environment we are getting less and less natural light and more artificial light. This is mainly due to our working commitments. Most people work indoors which limits exposure to natural light. These same people are often exposed to indoor artificial light and computer light.

This lack of natural light and increased artificial light disrupts our brains sleep/wake cycle, thus resulting in decreased sleep quality.

- With artificial lights, we have now created a world of "endless summer". For the vast majority of our history on earth, there was a consistent yearly cycle of seasons which dictated the amount of light and darkness we would encounter each day.

This is what our DNA expects. Our DNA has an internal calendar and an internal clock. Summertime is a time of extended days and more light. Wintertime is a time of shorter days and more darkness.

We have altered this by creating endless summer with artificial lights. This has disrupted our DNA clocks which evolved within the natural yearly cycle. This unnatural environment we have created has resulted in a deterioration of our sleep quantity and quality.

- Although the summer/winter sleep cycle is what our DNA expects, it is perhaps unrealistic in the modern world to adhere to such a sleep schedule, with more sleep in the winter with increased darkness and less sleep in the summer with increased light. However, there are many other sleep supports we can utilise to improve our sleep quantity and quality.

Improving Sleep

- Step one is to make your sleep a priority. It is at least as important as all the other pillars of wellness, yet it is the one that we neglect the most.

- To change your sleep behaviour, you need to change your environment. Start by turning the lights off. This is perhaps the best thing you can do to improve your sleep. Keep your bedroom as dark as possible.

- Experiment with temperatures. Some people sleep better in cooler environments.

- Try different relaxation techniques before bed. Nature sounds work well for some.

- Exercise can help but can also be a disruptor for others. Once again this is something you need to experiment with.

- Caffeine can be a negative or a positive. For some, elimination or reduction of caffeine is necessary to achieve a restful and restorative sleep.

- Naps are something you can experiment with if you can't get enough sleep during the night.

- To think more about your sleep needs, pretend you are Mother Nature. What environment did Mother Nature create for us to sleep well within? Recreate that environment and experiment with all these options to discover what works best for you.

Ep. 43 - Ask Dr. Theresa Podcast
Wellness Pillar #4 - Social Interaction

Why Social Interaction is Important

- We are wired to be social and connected.
 - There has been a huge change in our levels of wellness and one of the major contributors is the change in our social connectedness.
 - In regards to the 5 Pillars of Wellness, what distinguishes us most from any other species is our social interactions. Every animal needs food, movement, and sleep. We are similar to all animals in that way. However our social needs are completely different to most animals.
- It took millions of years of evolution to make humans a successful species in terms of survival and our social behaviours are our most distinctive characteristic compared to other species.
- The effect that our social life has on our wellness can sometimes be invisible. It can be difficult to estimate the exact impact, however we do know that our social environment is extremely important.
 - We are very driven to satisfy our social needs and if we were not, we would not have survived as a species for very long.

Our Social History

- What does it mean to be social? At one level it is an ability to communicate, cooperate, and care. Without these three things we wouldn't be humans, and we wouldn't be able to survive.
 - In our hunter-gatherer past, the typical community was a tribe. The tribe was built around food and safety, usually with numbers less than one hundred.
 - Humans have language which enables us to communicate at a higher level than other animals and to create culture and knowledge which can be passed down from generation to generation.
- This transfer of culture and knowledge enhanced our ability to survive and thrive as a species. Therefore our need to communicate, cooperate and care is a vital part of what it means to be human. Without these evolutionary characteristics, we would not be where we are today as a species.
- Care is particularly important in relation to human offspring. Human babies/children take a very long time to develop/mature and become productive adults. This desire to care for others is built in to our genetics to ensure we spend the time, energy, and effort necessary to nurture our offspring into adulthood.
 - Women in particular are extremely driven to establish and maintain relationships. A pregnant woman is vulnerable, as is the baby once it's born. In order for that mother and baby to survive, support from other people is needed. Therefore this need to build connections with others is especially important for women.
 - Due to the importance of these factors in our evolutionary history, we all have a tremendous drive in our DNA to be social and connected.

The Transition to Agriculture

- Why did humans transition from nomadic hunter-gatherers to agricultural settlers? One major factor was our social connections.

Around this time (approximately 10 thousand years ago), language became much more sophisticated and it was possible to converge into larger groups of people. This began to occur in many different parts of the world at the same time.

The Modern Social Environment

- We are currently in another transition and in order to survive in our new modern world, it's not a requirement to be social. Food, sleep, and movement needs can all be met alone.

However, it's highly unlikely that you'll thrive. Measures of health and wellness show clear differences between people who satisfy their social needs versus those who don't.

- Our evolutionary past has shown that for most of our history, we existed in small tribes less than one hundred people. This is what our genetics expect. However, in this modern technological world, we are exposed to thousands and even millions of people.

TV and the internet in particular have exposed us to these new connections. Although we cognitively understand that we don't know the people we watch on TV or follow on social media, other more primal areas of our brain experience connections to these people as if they were members of our tribe.

- For some people, this exposure to a vast array of connections can be too overwhelming and threatening. We often label these people "introverts" and they meet their social needs differently than "extroverts".

Introverts tend to remove the threats of real people from their lives by isolating, however they can still meet their social needs in a number of different ways in our modern environment. Examples include TV, books, pets, social media.

Through these media, "introverts" can remove the feeling of loneliness without direct social communication. This has been made more possible with technology.

- The stress of being connected to a global tribe can cause many social problems. Our genetics evolved within small connected tribes and there was a clear delineation between "Us vs Them".

For our survival, anyone and anything that was not a member of our immediate tribe was considered threatening until proven otherwise. This is a vital part of survival. In the modern world this can create an enormous stressor as that delineation is no longer clear. There is no "Us vs Them" as we are connected to everyone.

Are we Meeting our Social Needs?

- At this point it's impossible to say. We are currently living in a technological experiment. For most of our history, we lived in direct constant contact with other people in our tribes with minimal external interactions.

The transition to agriculturists gave us access to greater numbers of people, but it was still within a particular locality and the need to communicate, cooperate, and interact with family, friends, and the community was a priority.

It's only in very recently that our social environment has changed drastically. We have access to more people than ever yet at the same time, we have less and less face-to-face interactions.

- It's unclear at this point if we can function optimally within a global tribe. We have already made one major social transition from small nomadic tribes to large interconnected agricultural civilisations.

Technology gives us access to the entire world. This is yet another transition and transitions are always stressful. Many people report how becoming more connected to the global tribe is making them feel more isolated. Others report differently and feel safe and connected in our increasingly digitised world. How we move through this and the overall effects of this transition will be discovered in time.

- Throughout history when traditional social norms have changed, humans transitioned into other forms of communication and connection. Therefore it's not necessarily important HOW we meet our social needs, what's vital is that we meet those needs in some way.

On a personal level, everyone needs to establish if technology is helping or hindering their social needs. If technology increases your sense of connectedness and removes loneliness, it can definitely be positive.

On the other hand, if the use of technology is making you feel more disconnected, isolated, and lonely, it's very important you make the necessary adjustments in your life to support your social needs.

Ep. 44 - Ask Dr. Theresa Podcast
Wellness Pillar #5 - Developing Identity of Self

Understanding Identity of Self

- The previous four pillars of wellness were examined through common human needs. This pillar is different in that it addresses our individuality and how people are different.
- Developing identity of self is the process that we all go through as we transition from childhood to adulthood.
- Humans have a period in their life which other animals don't have called childhood. It involves many things including a long period of socialisation and the wiring of the brain in the world instead of wiring in the womb. Unlike other animals, humans have a prolonged period of brain growth after birth which makes us very adaptable to many different environments.
- Emergent stages such as walking and talking occur in every human regardless of environment. Developing an identity of self is different, it's more individual. **One aspect of the self is developing the desire to be well**. This is not an emergent like walking or talking. It is a transition from childhood to adulthood where an individual begins to think and take responsibility for their own wellness.

The Stages of Development

- Other animals are born as infants and then progress to a juvenile stage where they engage in play which is learning how to survive as an adult. The stages are:

Infant - Juvenile - Adult

- The human stages of development is different. It involves the following:

Infant - Toddler - Childhood - Adolescence - Adulthood

- During the infant stage, humans are particularly immature and helpless. Next is the toddler stage with increased mobility. Learning to walk and the development of language occurs during this stage.

The process of developing a sense of self takes a long, long time. It begins to emerge as babies become toddlers and understand that they are a "me" rather than a "we" with their mother/parents.

- Next is the stage of childhood.

Play is an extremely important part of childhood. Just like many other animals, play is an emergent for humans.

Play is a safe environment where children begin to experiment with who they are and how they are different from others. Play is a practice ground for understanding the world and how you relate to other people.

One crucial aspect of play is that it is unstructured and unscheduled. It requires imagination and initiative. In the modern world we recognise that play is important, however we have substituted play with structured activities like sport. Sports are beneficial but they don't provide the environment children need to develop vital skills like conflict resolution.

- Next is the stage of adolescence.

Adolescence is the end of childhood. It includes the development of puberty and sexual maturity and is another prime transitional phase. As soon as sexual maturity is reached, a human transitions into adulthood. This has changed in the modern world where we have extended the stage of adolescence.

During adolescence many changes occur including a breaking free from parents. Children become defiant and rebellious. This is a healthy and natural process, where the final stages of becoming an independent self are emerging.

This creates conflict however the period of play during childhood is where children will have practised how to resolve conflict. If a child did not experience that all-important phase of play, then they will be stunted in their progress towards adulthood.

- Next is the stage of adulthood.

This is characterised by independence and the ability to feed yourself, find a mate, and procreate.

Final Thoughts

- Play is such an important part of developing your identity of self. In our modern society we have changed play so that it's safer, but the trade-off is that our children are not getting everything they need during this essential developmental phase.

This results in prolonged childhood/adolescence.

- Your sense of self also develops by how you are treated by others. We internalise interactions and messages that are reinforced to us during our childhood.

- A book that Dr. Theresa recommends to understand developing an identity of self is "The Four Agreements" by Don Miguel Ruiz.