Nourishing Children's Post-natal Jing with Diet

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- Registered Practitioner of Chinese Medicine
- Practicing in Victoria, British Columbia, Canada since 2009
- Three children- 21, 18 and 9
- Have worked with children in the past in preschool and elementary school
- Love the theories and knowledge contained within Chinese Dietary Therapy and its power and potential to make a significant difference in a child's life

- 1) Jing
- 2) The immature Spleen and Stomach (Middle Burner)
- 3) Protect and Nourish the Middle Burner with Chinese Medicine dietary principals

Overview

- 4) Post-natal Jing is defined by the Qi and nutrients that are extracted from food and drink by the Spleen and Stomach
- ☐ 5) The preconception diet of the mother and father and its potential influence on the Jing of a child with current research
- 6) Questions!

Overview

Jing definition

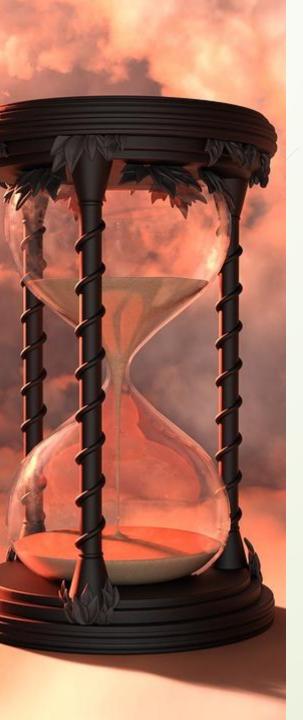
"That which is responsible for growth, development, and reproduction, and determines the strength of the constitution, and is manifest physically in the male in the form of semen. Essence is composed of earlier heaven essence (congenital essence), which is inherited from the parents and constantly supplemented by later heaven essence (acquired essence) produced from food by the stomach and spleen. Later heaven essence is considered to be the same as, or a derivative of, the essence of grain and water from which qi, blood, and fluids are also produced."

☐ - A Practical Dictionary of Chinese Medicine



Importance of Jing as a treasure to be guarded

- ☐ Foundation of vitality and stamina
- Foundation of the body and the root of the Mind
- Determines the power of our life
- ☐ Preserving Jing= longevity



Importance of Jing as a treasure to be guarded

- Jing circulates in the body through the extraordinary vessels and together with Wei Qi helps determine our immune system function.
- Jing is finite, and overtime is naturally depleted by illness, aging, overwork, and stress but can be supplemented or buffered somewhat by the Qi created from food and drink.
- Jing is passed on to the next generation.



Spleen and Stomach connection to Post-natal Jing:

- A Chinese Medicine saying is, 'The Spleen is the root of Post-Heaven Qi'.
- The Spleen and Stomach are pivotal for the formation of Qi and Blood.
- Qi is generated from the transformation of food and drink and is replenished daily.

Spleen and Stomach connection to Post-natal Jing:

- Jing has long cycles (7 years girls, 8 years boys) and is given to us in infusions throughout our lives- it is protected by lifestyle choices and the daily formation of Qi.
- Eating helps to make Qi (as well as breathing).
- □ Enjoyment of food helps in food transformation. It is the joy/fire that transforms it into Qi.

☐ Lillian Pearl Bridges taught that the Jing can be seen on the face in the philtrum.

She wrote, "...showing the time of life when the most Jing is given from this underground aquifer."

The shape of the philtrum can change depending on how Jing has been used up to that point.

Even Jing Most Jing in Most Jing in Most Jing Infusions childhood mid-life in old age

Childhood

Mid-life

Old age

Immature Spleen and Stomach

- ☐ The vitality of the Spleen and Stomach determines the ability to transform food and thus the ability to buffer Jing by creating beneficial Qi to nourish the body instead of dipping into Jing reserves.
- ☐ Food and drink are powerful medicine as well as powerful health destroyers.
- The Western diet does not truly consider digestive health; Chinese Medicine has so much to offer children in this regard.

Immature Spleen and Stomach

- Every child, as they are growing and maturing, require nurturing and fortifying of the Middle Jiao (the Spleen and Stomach).
- ☐ For children, above anything else, it is their dietary habits that will establish whether they are flourishing or whether they are causing ill health and imbalance.



Immature Spleen and Stomach

- Children grow and develop at a rapid pace and so they require a lot of food in relation to their size to keep up with their body's need for nutrients, essence, blood, and fluid.
- ☐ The Spleen can have a hard time keeping up with the amount of food eaten, leading to digestive issues for children.
- Common disorders for children- accumulation disorder, food stagnation, poor appetite, stomachaches, constipation, or diarrhea.



Pay attention to:

- Foods, habits, and other things that can lead to Spleen Qi deficiency as reducing or eliminating these can be just as important as tonifying and nourishing the Spleen and Stomach.
- ☐ The everchanging food and ingredients environment, i.e.: chemical additives, GMOs, ultra-processed foods, ???

Unfavorable for the immature Spleen and Stomach:











EXCESS SUGAR

CONSUMING CHILLED, FROZEN, ICED OR COLD-NATURED FOOD AND DRINK FOODS THAT ENGENDER DAMPNESS **RAW FOOD IN EXCESS**

ALLOPATHIC MEDICINE- I.E.: ANTIBIOTICS, FEVER REDUCERS AND PAIN MED'S

Other things that are possibly unfavorable to the immature Spleen and Stomach function?



Natural Flavours



Low-Calorie or artificial Sweeteners



Pesticides

1) Sugar's harmful effects

- Too much sweet flavour will eventually weaken the Spleen and Stomach and in turn the digestive system. Sugar creates damp conditions and can lead to issues such as eczema, lethargy, chronic cough, and allergies.
- Due to children's inherently weak Spleen function and their intrinsic preference towards sweet foods in our sugar-laden food environment, it is especially important to limit refined sugars in their diet.

Sugar is prolific nowadays

WHO recommended daily allowance (RDA) for children is less than 25 grams/ 6 tsp per day

Apple juice= 19 grams/ 4.28 tsp

Granola bar, Oats, and honey= 11 grams/ 2.63 tsp

A tablespoon of ketchup= 4 grams/ 1 tsp

1 cup organic kids' cereal= 10 grams/ 2.5 tsp 16 oz, large Lemonade, Starbucks= 27 grams/ 6.5 tsp Current
ultra-processed food
culture, it is all too
easy to surpass
the RDA

Why are children particularly vulnerable to sugar?

- ☐ Their tastebuds prefer concentrated sweets.
- *An adult's most preferred level of sucrose is equivalent to 0.3 molar, which is about what a Coca-Cola tastes like. A child's preferred level is *double*, at 0.6 molar.

*Research by Julie Menella, biopsychologist

Why are children particularly vulnerable to sugar?

- This preference for the sweet flavour is biologically helpful; guides them to prefer breastmilk, which is naturally sweet.
- During periods of heightened growth, they become more attracted to foods like fruit and honey, which contain more calories to sustain this development.
- From an evolutionary standpoint, sweet (and salty) are safe, whereas bitter could signal a poisonous food.

Sugar's harmful effects



- ☐ Sugar used to be plain old white sugar.
- Now it is consumed in hundreds of different forms. Most are rapidly absorbed and highly concentrated, i.e.: high fructose corn syrup (glucose/fructose, isoglucose).
- The body processes fructose in the same way as alcohol- it goes straight to the liver (whole fruit does not do this).
- ☐ Fatty liver disease used to be a problem only seen in adult alcoholics; these days children can be diagnosed with it.

Sugar's harmful effects

- ☐ Type 2 diabetes used to be called adult-onset diabetes because it was very rare for a child or teen to develop the disease.
- ☐ First reports of children with type 2 diabetes in the year 2000.

Sugar's harmful effects

- Exposure to fructose (and low-calorie sweeteners) makes it more likely that developing cells will become fat cells.
- ☐ This increases the chance of a child being overweight, and/or developing Metabolic disorder and Type 2 diabetes.

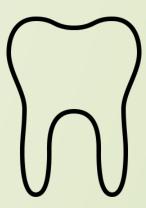
Sugars harmful effects

- ☐ Sugar causes a spike in blood sugar which then causes a crash with a subsequent craving for more sugar becoming a vicious cycle.
- Sugar is addictive
- Developing bodies (children) are much more susceptible than adults to the effects of too much sugar



Sugars harmful effects

- ☐ Sugar can disrupt the normal growth of the heart, brain, liver, gut, and more
- ☐ Sugar promotes the growth of certain bacteria in the mouth that produce an acid that can break down teeth and lead to decay.



Sugar Medicinal Properties- Chinese Medicine

Sweet, neutral, moistening

Small amounts will nourish the Spleen and Stomach and help to moisten the intestines.

Sugar helps to create relaxation in the body and can ease spasms and pain.

Better forms of sugar:

- ✓ Honey
- ✓ Malted Barley
- ✓ Maple Syrup
- Raw Cane Sugar
- Molasses
- ✓ Brown Rice Syrup
- ✓ Whole fruit with the fiber
- Dried fruit





2) Watch for chilled, frozen, iced, or cold-natured food and drink

- Digestive fire continually snuffed out with:
- Smoothies made with frozen berries/bananas
- Ice in drinks, Ice cream, and popsicles
- Fruits or vegetables eaten straight out of the refrigerator
- Cold-natured foods (watermelon, bananas, cucumbers, tofu)

3) Dampness engendering= burden the Spleen when eaten in excess

- Every child will be different in the amount of dampness produced by certain foods.
- overall, it is best not to burden the immature Spleen with an excess of damp-producing foods.

Dampness engendering when in excess in the diet:

- Sugar, fruit juice, and sweets
- Dairy
- Eggs
- Refined starches including white flour- muffins, bagels, bread, crackers
- ☐ Tropical fruit, including bananas
- Raw vegetables
- ☐ Nuts (especially peanut butter)
- ☐ Fatty, greasy, and fried foods
- Garlic or spicy food can irritate the gut- especially for small children.



4) Raw food in excess

- Raw food is harder to digest and cooler in thermal nature.
- ☐ Young children's inherently weak Spleen Qi makes it more difficult to digest.
- Cooking food helps its digestibility and is warming.
- ☐ Cooking vegetables softens the plants' cell walls and releases more nutrients.



5) Allopathic medicine

- ☐ Antibiotics, fever reducers, and pain medicine are energetically cold.
- ☐ If given often they can decrease digestive fire and weaken the Spleen and Stomach qi of a child.



Other- Natural Flavours

- Differs from Artificial Flavour only from starting point- a natural substance vs synthetic.
- The end product is no longer "natural"- it could be hundreds of chemical constituents- solvents, preservatives, emulsifiers, carriers and other additives.
- ☐ Has slowly been creeping into EVERYTHING!
- □ "Regard nontraditional foods with skepticism", Michael Pollan.

Other- Low calorie or artificial sweeteners

- Examples: Sucralose, aspartame, acesulfame potassium, sorbitol, saccharine, stevia.
- □ Sources- yoghurt, ketchup, sugar-free chewing gum, cereal.
- □ 180 to 2000 X sweeter than sugar= too much sweetness for the Spleen.
- Emerging research showing altered impacts on the microbiome of adults and may induce glucose intolerance- what are the long-term effects on children?



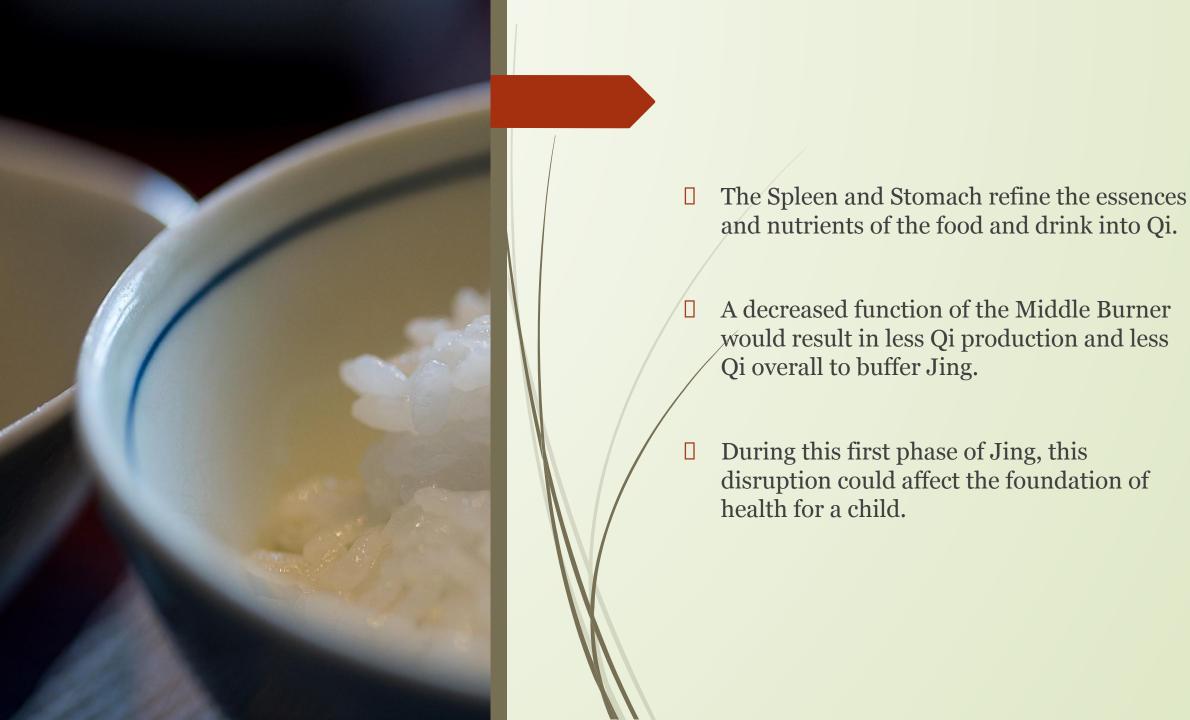
Other- Pesticides

- ☐ Glyphosate pesticide is an antibiotic
- Glyphosate residue can be found in oats, wheat (dried and fresh pasta, crackers), lentils, chickpeas, and soy.
- Further studies are needed to find out if there is an effect on the human microbiota.
- Limit exposure to pesticides by choosing organic products and produce.

Dietary therapy is one of the treatment branches of Chinese Medicine that is significant during the first cycle of Jing when the Spleen is immature.

Protect and nourish the immature Spleen and Stomach

By protecting and nourishing the Spleen and Stomach Qi in children, we aim to create improved digestion, appetite, and immunity so that children are more resilient, and will be more likely to make better food choices for themselves when they are adults.



Best dietary ways to nourish the Spleen for children



Easily digestible, slightly bland foods.



Cooked foods are more easily digested.



Foods that have a natural sweetness deeply nourish the Spleen (root vegetables, squash, yams, beans, rice).



Watch for whole grains such as brown rice in infants- they may be difficult for them to digest

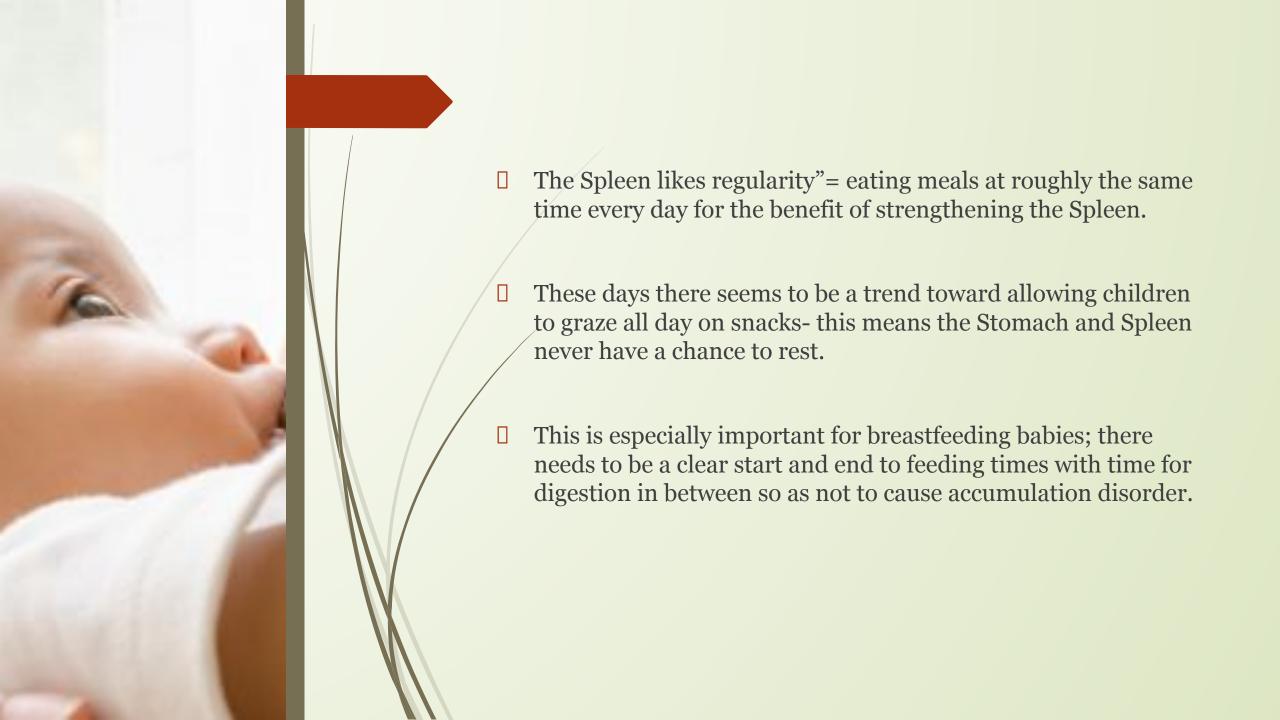
Examples of easily digestible, Spleen Qi nourishing foods:

- Millet, amaranth, rice, quinoa
- Sweet potatoes, yams
- Carrots
- Winter squash
- Chickpeas, lentils
- Figs, dates.











Stress-free mealtimes- A relaxed environment, free from the stresses of the day, will allow the digestive system to relax and enhances digestion.



This also includes focusing on the meal and not watching television or playing video games or eating on the run.



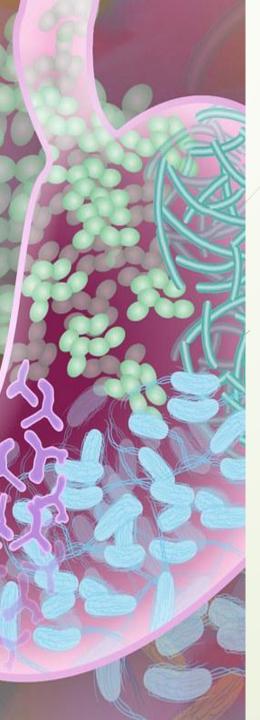
Allow children to occasionally miss a meal if it is what their bodies need. Sometimes they don't need as much food for a few days.

Breastmilk nourishes the Spleen Qi

- ☐ Mother's milk is the best source of nutrition for the first 6 months of life and then breastfeeding with complimentary food until at least 12 months of age.
- Breastmilk is a living fluid and changes its composition in relation to the needs of the growing infant.
- It is easily digested due to its digestive enzyme content and contains human milk oligosaccharides (HMO), which are an early source of prebiotics to help feed the bacteria in the developing gut microbiome.

Microbiome

- ☐ If children are to have healthy Spleen and Stomach Qi, we cannot ignore our 21st -century understanding of microbiota.
- the first few years of life are crucial to the colonization and development of intestinal microflora.
- Diversity in the microbiome, also known as gut microbial species richness, is used as an indicator to define microbial health.



- The microorganisms in the microbiome have been found to be responsible for providing nutrients and vitamins that our bodies are not normally able to make on their own; they help to digest food and are constantly preventing unwanted foreigners like salmonella or listeria from gaining a foothold.
- Symptoms of gut microbial dysbiosis are bloating, diarrhea, constipation, food sensitivities/allergies; these mirror symptoms of Spleen and Stomach Qi deficiency.



Protect and populate

The marketing of probiotics has outpaced the research. Our diets can supply us with all the probiotics we need- food-based probiotics contain microorganisms that have greater bacterial diversity than over-the-counter probiotics and in amounts highly exceeding supplements for a fraction of the cost.

Probiotics are not regulated.

Examples of probiotic-rich foods:

- Cheese (raw, unpasteurized-Gruyère, Emmental, Edam, Cheddar, Feta, and Gouda are some common probiotic varieties)
- European-style dry fermented sausage
- Tempeh
- Kefir (preferably unsweetened)
- Miso
- Koji rice
- Sauerkraut and kimchee (unpasteurized)
- Pickled vegetables (need to be traditionally pickled without the use of vinegar or heat to offer probiotics)
- Yoghurt (preferably unsweetened).

Examples of Prebiotic foods:

Fruit: apples, grapefruit, kiwifruit, nectarines, persimmons, pomegranate, watermelon, white peaches; also dried fruit (e.g., dates, figs)

Grains: barley, oats, rye, wheat

Legumes: baked beans, chickpeas, lentils, red kidney beans, soybeans

Nuts: almonds, cashews, pistachios

Vegetables: artichokes, asparagus, beetroot, chicory, dandelion greens, fennel bulbs, garlic, green peas, leeks, onions, savoy cabbage, shallots, snow peas, spring onions, sweetcorn

Other: cocoa, flax seeds, seaweed, honey, acacia gum (gum arabic)

Ways in which the microbiome can be negatively affected in children:

- Babies born by cesarean section
- Over sanitization.
- Antibiotics are a powerful, life-saving invention that should only be used when *absolutely* necessary, especially in the first three years of life when the gut microbiome is developing.
- In the first three months of life, researchers can detect at about 80-90% if children will get asthma by looking at the microbes in their feces.

Beneficial for the microbiome:

- High-fiber diet
- Breast milk is teeming with live bacteria that colonize the infant's gut.
- Owning a dog.
- Playing in the dirt.
- Being exposed to nature- researchers found that infants who were formula-fed but lived close to a green space had a microbiome that was similar to a breastfed baby



Pre-natal Jing/Essence

The Jing of the woman and man combine at conception to nourish the embryo and fetus

Pre-natal Jing is inherited from both parents and our ancestors and determines a person's constitutional vitality, immunity, and strength.

Therefore, if conception occurs when both parents are nutritionally deficient or have used up a lot of their Jing or were both born with less Jing, there will be less to pass on to the child.

Preconception diet of the mother and father

- Chinese Medicine advises taking at least 3 months to prepare the body for conception.
- ☐ It is known that any healthful changes will take about 3 menstrual cycles to effect positive change.
- Full sperm regeneration cycle is around 2.5 months- any dietary improvements will take this amount of time to improve sperm quality and potentially Jing.

Modern Research

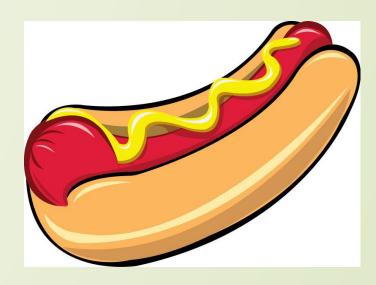
- ☐ The first 1000 days (from conception to age 2) have been researched and discovered to be a critical window of opportunity and vulnerability for a child
- It is a time when the nutrition from the mother and the first years of life contribute to the building blocks for brain development, healthy growth, and a strong immune system.
- ☐ Much of the epigenetic activity in one's cells happens during these 1000 days- diet and environment have a major impact

"Mounting evidence indicates diet-induced maternal and paternal programming of infant metabolism, brain function, emotion-related behaviours, and eventually mental health."

- Of 'junk food' and 'brain food': how parental diet influences offspring neurobiology and behaviour. August 2021, Trends in Endocrinology and Metabolism

☐ Western diet classified as:

- Ultra-processed foods
- Greater use of highly refined edible oils
- High in saturated fatty acids
- High in refined sugar
- Low in fiber
- Low in fresh fruit and vegetables
- Low in whole grains
- Low in seafood
- Low in nutrients



'Super foods' for preconception health in research study classified as:

Healthy fats- nuts, avocado, peanut butter, seeds, and fish.

Antioxidants- fruit, vegetables, squash, whole grains, seeds, and nuts.

Methyl donors: folate, choline, vitamin b12, and betaine. Sources are seaweed, dark leafy green vegetables, cruciferous vegetables, mushrooms, liver, beets, beans, and legumes.

Prebiotics: vegetables, fruit, legumes, and whole grains.

In rodent studies:

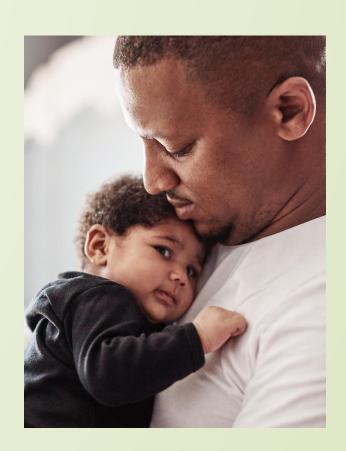
- Maternal and paternal healthy diet helped to:
- Reduced risk of birth defects
- Reduced risk of neural tube defects
- Reduced risk of autism spectrum disorders
- Improved cognitive abilities

In rodent studies:

- Maternal and paternal 'Junk diet' contributed to higher rates of
 - Neuroinflammation
 - Impaired neurodevelopment
- Increased preference for junk food
- Increased anxiety-like behaviour

Paternal diet

- ☐ More evidence is pointing to the role that sperm health and quality play in fertility as well as the genetic imprinting that sperm pass along to children.
- A healthy diet improved sperm health in 2.5 months
- or more alcoholic beverages per week were linked to an increased rate of miscarriage
- ☐ Studies connect paternal obesity with a higher chance that their children will be obese, most likely due to epigenetic changes in DNA



Maternal diet

- Exposure to high fructose makes it more likely that developing cells will become fat cells. Low-calorie sweeteners do this as well. Both create higher chances of children being overweight or having a metabolic disorder.
- ☐ Sugar addiction can begin in utero as glucose crosses the placenta.
- ☐ High maternal sugar intake has been linked to the onset of food allergies
- How well we are nourished in the womb will influence future health- nutrition determines how our organs are constructed.

Maternal diet

- ☐ The flavours of what the mother eats, and drinks transfer to the amniotic fluid and is swallowed by the fetus.
- Breastmilk similarly reflects the spices, foods, and drinks of the mother's diet.
- ☐ Studies show this affects an infant's preference for certain flavours.



Chinese dietary preconception (both parents) and prenatal recommendations

- ☐ Begin the health journey a minimum of 3 months before trying to conceive.
- Eat a warming, nourishing diet and minimize chilled, iced, or frozen foods to support Spleen Qi, Blood nourishment, and digestion.
- ☐ Watch the amount of raw or excess cold-natured food= weakens Spleen Qi and Yang leading to dampness.

Chinese dietary preconception (both parents) and prenatal recommendations

- Watch the amount of heating, drying, and pungent foods (for example, cayenne, chili pepper, deep-fried foods, and smoked foods) as these foods can burn up Yin fluids (cervical mucous, seminal fluid) and Blood.
- Eat seasonally and locally as much as possible.
- ☐ Reduce refined sugars and flour.
- Reduce greasy, deep-fried foods

Foods that nourish Jing for children and the preconception health of their parents!

- □ Nourish Jing to help with Kidney Essence for maternal ova (eggs) and paternal sperm health.
- Along with nourishing the Spleen and Stomach in children adding these Jing-rich foods will help to enrich their vitality.
- For Jing tonics to be digested and the Essences properly absorbed, there first needs to be digestive strength!

- □ Walnuts- are warming and sweet, tonifies Kidney and Lung qi, yang, and Jing.
- *1/3 cup per day over 3 months helps to increase sperm vitality, motility, and morphology.
- □ **Spirulina** is cooling, salty, and nourishes blood, yin, and Jing.
- ☐ **Breastmilk** is a pure Jing tonic for babies.
- □ Almonds and homemade almond milk- are sweet, neutral, nourish Jing, and are helpful for Lung conditions.



- **Bone broth**-gelatin is released from the bones during the slow cooking process along with nutrients.
- Nettles- cooling, sweet and salty, and nourishes blood, yin, and Jing.
- **Eggs** neutral, sweet, Jing tonic. Too many eggs can be mucous-producing.
- ☐ **Goji berries** are neutral, sweet, tonifies Liver and Kidney yin and benefits Jing.



- Black and white sesame Seeds- sweet and neutral, nourish the blood, yin, and Jing, and help to increase lactation.
- ☐ **Lentils-** sweet and neutral, increase the Jing of the Kidneys and clear dampness.
- ☐ Goat/Sheep milk- Warming and sweet, nourishes Kidney Jing, blood, yin, and qi.



Nourishing Children's Post-Natal Jing with diet Summary

- ☐ Jing is finite and a treasure to be guarded.
- ☐ Qi is replenished daily and helps to protect against Jing loss.
- ☐ Qi production depends on the strength of the Spleen and Stomach/digestion.
- ☐ Enjoyment of food helps in food transformation.
- Pay attention not only to what nourishes the Spleen and Stomach but to the things that can be unfavorable.
- □ Modern sugar consumption in children is unprecedented.
- ☐ Childhood is a crucial period for the development of our microbiomes.
- □ Both maternal and paternal preconception nutrition matter to the future health of a child.
- □ Nourishing digestion in children is key to building a strong foundation of health and helping to secure long-term wellness and Jing longevity.