



While getting and being pregnant is natural, our external and internal environments are not as natural as they were 10,000 or even 100 years ago. During pregnancy two lives share a complex chemical environment. Optimal nutrition before, during and after pregnancy remains controversial. It was not long ago that mothers had to re-learn that their breast milk is far healthier than formula, despite the marketing tactics that confused them for a decade or so. Likewise, we now have more information that can give our children the best chance to grow. The concepts of deficiency, toxicity, fetal development and inheritance are very important to understand. When applied, this can have a powerful influence on our children and their children, and can transform our anxiety into inspiration, confidence and an enjoyable and healthy pregnancy.

Conception and after is affected by the totality of a mother and father's lifestyle, for months and years before. The new concepts of epigenetics¹ and morphic fields² indicate that each generation passes along information to the next by means other than genes. These concepts both empower and give responsibility, for what our grandparents and parents did, has affected our entire lives. Likewise, how we live our lives affects not only the fetus growing in us, but that fetus' (grandfetus!?), apart from what we pass on in our genes.

Deficiency and Insufficiency

The discovery of the cause of rickets and scurvy (Vitamin D and C) and other deficiency diseases was invaluable to humanity. However, the RDA's (Recommended Dietary Allowances) first formulated in the 1950's, represent the minimum amount of nutrients needed to prevent such diseases, but are far from what current science tells us we need. If we give a child the minimum amount of nutrition, water, love, education, etc., we will end up with a minimal organism, not an optimal organism. The amount of nutrients that we need, not to just survive, but to thrive is often called the ODI, or Optimal Daily Intake. Sometimes the ODI is 10-100 times the RDA. While the RDA's are slowly changing, (such as folate in pregnancy), they are not changing fast enough.

The concept of insufficiency explains that we can have sub-optimal levels of critical nutrients that do not cause frank illness but cause subtle dysfunction of several systems, including: immune, growth/ healing, hormonal and energy-production (explaining much illness and fatigue). There is ample scientific proof, for example, we need at least 1000-2000 IU of Vitamin D daily, rather than the 400 IU in the RDA. Also, Magnesium (Mg) is utilized by over 300 processes of the body, including bone growth, muscle relaxation (including those in the vessels to our hearts), energy generation, and possibly the prevention/ treatment of preeclampsia. There have been scientific studies correlating heart attack rates with the Mg levels of a community's drinking water. Up to 40% of Americans are deficient in this critical nutrient, if measured properly.

This concept of insufficiency can be applied to most nutrients. If we think of a nutrient as a resource needed for optimal health, then our critical nutrients include things such as water, sleep, love, music and laughter! How many of us are dragging around because of an insufficiency of at least one of these important but unappreciated nutrients?

Insufficiency can be caused by inadequate intake, poor absorption, and/or several factors combined--many nutrients are difficult to get in our diet or absorb. Identification and correction of insufficiency is easy, and should occur before conception, since correction may take months and should be verified by lab tests. In addition, the resulting change in biochemical environment can cause a mobilization of toxins as our metabolic machinery begins to function more effectively.

Toxicity

Toxins are of two types, "exo-", coming from the outside, and "endo-", coming from the inside (waste products of our normal

metabolism). We evolved with both; therefore the body has mechanisms to excrete them using the liver, bowel, kidneys, skin, hair and lungs. However, with hundreds of chemicals in our food, water and air, and other stressors, the load of toxins exceeds the body's ability to handle them and these mechanisms become impaired. In some ways, the process of aging simply reflects the accumulation of toxins.

Often these toxins sneak into our bodies without our knowing it. Examples include heavy metals (lead, mercury, arsenic and others), yeast, bad bacteria, parasites (up to 40% of Americans!), and petroleum-based chemicals (essentially 100% of Americans!).

How much we accumulate depends upon multiple factors, such as quantity of toxin, genetic variability in ability to handle each toxin, presence of other toxins, nutritional status, sleep, etc.

Measurement of these toxins when possible is a good idea for most of us, since they can hide for decades and manifest in indirect ways, including hormonal dysfunction, infertility, allergy and immune dysfunction, fatigue, pain, multiple sclerosis, gastrointestinal dysfunction (diarrhea, constipation, colitis, GERD), and other symptoms.

The measurement and treatment of these toxins may mobilize agents (such as heavy metals) that should not be in flux during pregnancy or breast feeding. Even cleansing/ detox diets or fasts, natural means of eliminating many of these toxins, should occur before conception because by their nature they mobilize toxins.

Allergy to certain foods, such as dairy or gluten (wheat and other grains) can act like a form of toxicity for the mother and baby during pregnancy and breast feeding and should be evaluated before conception.

Hormonal Environment

"Sub-clinical" (unmeasurable) hypo-(low) thyroidism and adrenal fatigue are two increasingly common hormonal disorders. They can interact with the sugar-controlling hormones (such as insulin) and the sex hormones to affect fertility, pregnancy, and fetal development. They can be detected by special tests and if found should again be treated before conception.

Neuro-psycho-spiritual-energetic Realm

Having a child is a life-changing event. We are wired to place our progeny at the top of our priority list. Therefore, activities that maintained our physical, mental and spiritual health may be placed on hold. Relationships with spouse, family, friends, employers, and most importantly, self, also get re-prioritized.

Pro-actively preparing for this change before and during pregnancy can be a positive experience. There are several excellent tools that can help in this process. Time-management tools as wonderfully presented in the classic Time Power by Thomas Hobbs can help one re-evaluate and re-allocate priorities.

Classical yoga practice helps one explore the mind and spirit, unlike "fitness yoga", which is often limited to the physical dimension. Yoga is also excellent in preparing the body for the physical stresses of pregnancy. In addition, the hormone "relaxin", which the body produces during pregnancy to enable the pelvis to loosen and pass the baby, allows for other tight ligaments to naturally release. Proper yogic breathing can increase oxygen to a baby's developing brain. This all can be done safely with the supervision of an experienced yoga teacher.

Utilizing a journal as a tool (not just a log or gripe book), as articulated in classics such as Artist's Way enables one to privately explore the psycho-spiritual world. It also allows one to re-read, re-experience, and re-explore this exciting time in later years. One of many creative journaling exercises is writing letters to your future children at different ages. Reading spiritual classics such as The Road Less Traveled by Scott Peck while journaling allows for the review of spiritual principles and priorities.

A mother's mental state is ultimately encoded in neurotransmitters and neuro-hormones (molecules from the brain, gut

and other organs), as well as the energy field described by Chinese and Ayurvedic Medicine. These systems are used by the cells of the body to communicate with each other. Practicing the above balancing methods helps reduce stress, modulate mood, and improve physiology. There are now tests available that detect neurotransmitter and hormonal imbalances, which can manifest as anxiety, depression and other behavioral/ cognitive disorders. These tests can be utilized to formulate nutritional and energetic (acupuncture/yoga etc.) programs to naturally re-balance brain chemistry, again, ideally, before conception occurs.

Food, Critical Nutrients and Diet

Unless an enormous amount of time and resource is spent on food, it is virtually impossible to get all our essential nutrients through food. Therefore, supplementation is necessary (even the AMA agrees!) It is clear that many of the "pre-natal" supplements offered are based on the RDA's and are therefore insufficient. For example, many now contain DHA ("fish oil"), but the quantity is insufficient for even a non-pregnant adult. Having proper measurements taken and working with a knowledgeable practitioner to individualize a supplement program will enable optimal nutrition. Again, this process should ideally begin several months before conception, and may aid conception in some who have or will experience infertility.

Every parent needs to read two critical books by Pollan and Campbell about the food and dairy industries. These will help you decide what to feed your family before, during and after pregnancy. The first foods that a baby is fed after weaning can influence health for the rest of it's life. Delaying soy and wheat, and eliminating dairy, sweeteners, neurotoxins such as MSG and other chemicals and processed foods can be of tremendous value. While there may be initial shock and withdrawal symptoms while giving up some of our comfort foods, there is plenty of delicious and healthy food to eat.

Moving to organic foods is becoming more critical to avoid toxicity and get vital nutrients. Important websites, such as www.ewg.org are ahead of their time in listing toxicity in produce, fish, and baby products (such as bottles and baby foods). (See "Links" at www.cheikin.com)

Brain development

Following the above principles will help optimize fetal brain development. There are tools that can help you plan for optimal brain development after birth. Important books, such as Glenn Doman's How Smart is Your Baby... have raised important questions and provided solutions to the problems with conventional education. Infant and kid yoga is also wonderful for mother and baby.

Immunization and the Right Practitioner(s)

The history of medicine has a handful of truly miraculous discoveries, including immunization. Protecting children from smallpox, measles and mumps is clearly a good thing. However, like most things American, more is not better. Our quest for immunity has gone too far, with the babies now being immunized in first week of life! While a very personal decision, every parent needs to educate her/himself on this important topic, make informed decisions, and plan to manage their pediatricians and school officials if necessary. Like with other grass-roots initiatives, such as choosing which vaccines your baby will receive, and when, will become a standard. Finding the right practitioner(s) with a similar philosophy, through friends, internet and interviews can also occur before conception.

Is It Too Late?

For those of us (including this author) who learn these important concepts after we've already conceived or have raised our kids into their teens, we can utilize these concepts starting today. There is plenty of data showing that the minute we change our lifestyles, even at advanced ages, the body begins to improve.

We all have enormous potential which we have not tapped. If there is any doubt about this, just watch a hypnosis demonstration, or rent a video of a 70+ year old yogi. Our concepts of aging--which begins in the womb!--are backwards. It is not a given that we become stiff, saggy, demented, fat, and depressed. Unfortunately, conventional medicine, controlled by profit-motivated pharmaceutical companies, focuses too much on managing (i.e. masking) illness with drugs, and barely any resource on discovering on how we heal, stay well and improve. While aging is inevitable, by learning and committing to these principles, we can have healthy children and families that live and love for many generations.

IMPORTANT NOTE: This educational material may not be used to make decisions about medical care without the help of an experienced practitioner.

Footnotes (see reading list for more information)

¹ Epigenes are molecules that affect how genes are expressed, and unlike genes, which are stable from generation to generation, are affected by our lifestyle, and have been shown scientifically to affect at least the two generations that follow.

² "Morphic Fields", proposed by Rupert Sheldrake and others, suggest that there are fields of information that transcend time and space, are shared by a species, and influence and explain mysterious processes including fetal development, memory, group behavior, and other mysterious phenomena (such as idiot savants).

For More Information

- See Dr. Cheikin's website, www.cheikin.com, for related articles on: Energetics (of Compassion), Heavy Metal Toxicity, Journaling, Courage to Heal, as well as other topics and holistic health information.
- Dr. Cheikin offers workshops in several holistic health topics for adults and children. Please call for more information or to host a Workshop.
- Pollan, Michael (2006). The Omnivore's Dilemma: A Natural History of Four Meals. New York: Penguin Press. ISBN 9781-5942-00823.
- Campbell, TC et al: China Study: The Most Comprehensive Study of Nutrition Ever Conducted and the Implications for Diet, Weight Loss... Benbella, 2005. 1932-100-385.
- Doman, Glenn: How Smart Is Your Baby?: Develop And Nurture Your Newborn's Full Potential. Square One, 2006. ISBN 0757-001-947.
- Hobbs, Charles: Time Power: The Revolutionary Time Management System That Can Change your Professional and Personal Life. Harper, 1987. 0060-914-904.
- Sheldrake, Rupert: The Presence of the Past: Morphic Resonance & the Habits of Nature. Inner Traditions International, 1995. 0892-815-37X.
- Peck, M. Scott: Road Less Traveled. New York: Touchstone, 1978 (1997). 0684-847-248.
- Cameron, Julia: The Artist's Way: A Spiritual Path to Higher Creativity. Penguin, 1992. 0874-776-945.
- Fenster, Carol: Special Diet Solutions: Healthy Cooking Without Wheat, Gluten, ... or Refined Sugar, 3rd Ed. Savory Palate, 2001. 1889-374-008.
- Bland, Jeffrey: The 20-Day Rejuvenation Diet Program. Los Angeles: Keats, 1999. ISBN 0879-839-805.
- Boutenko Victoria: Green for Life. Raw Family, 2005. 0970-481-969.
- Pizzorno, Joseph: Total Wellness: Improve Your Health by Understanding... Prima, 1997, ISBN 0761-510-94X.
- Sivananda Center: The Sivananda Companion to Yoga. New York: Simon & Schuster, 1983. ISBN: 0684-87000-2.

The contents of this article are copyright 2007-8 by Michael Cheikin MD and may not be reproduced without express written permission.

Michael Cheikin MD is a holistic physician, Board Certified in Physical Medicine and Rehabilitation ("Physiatry"), Pain Management, Spinal Cord Medicine and Electrodiagnostic Medicine and licensed in Medical Acupuncture. He provides leadership to several medical institutions. Dr. Cheikin has extensively studied yoga, diet and metabolism, Ayurvedic, Chinese and energy medicine and other alternative modalities for over 30 years. He designs balanced, natural, individualized health programs for his patients utilizing a combination of education and counseling, medical yoga, whole foods and supplements, and medical acupuncture. He also uses special laboratory tests and diet plans for his patients with obscure, chronic and severe problems who have not responded satisfactorily to other methods of healing. He accepts most insurance plans for consultation by adults and children. 610-239-8626 or www.cheikin.com