

Lower-carb diet satiates better

By DR. JOHN BRIFFA

Weight control receives a lot of attention from doctors and other health professionals, scientists, and the media, a reflection of the fact that there are burgeoning rates of obesity in industrialized countries around the world.

While a number of dietary approaches have been advocated for weight loss, my preference is for diets that are relatively rich in protein and low in carbohydrate. And one major reason for this is the fact that, calorie for calorie, protein sates the appetite generally more effectively than fat or carbohydrate. Therefore individuals who up their protein intake often find they are eating less because they're less hungry.

However, how much satisfaction is derived from a meal once it's eaten and for the next few hours will not depend solely on its protein content (and how much is eaten, of course). Fat and carbohydrate can also have distinct effects on feelings of fullness too.

Fat, for instance, can stimulate the secretion of the hormone cholecystokinin from the small intestine, which helps to keep the appetite sated. Carbohydrates are important too, and studies show that those that release sugar relatively slowly into the bloodstream (lower glycemic index carbs) are generally more satisfying than those that release sugar more quickly [1].

One reason for this relates to the fact that faster sugar-releasing carbohydrates tend to cause the secretion of larger amounts of insulin, which can drive blood sugar levels down to lower-than-ideal levels. The end result can be a ravenous appetite and sometimes craving for carbohydrates (often something sweet), about two to four hours after

a meal. Even slower-releasing carbs can have this effect if we eat enough of them.

I was interested to read about a study presented yesterday at the Endocrine Society's annual meeting in Washington, D.C. The study assessed the effect on satisfaction of two diets of different macronutrient composition. One diet provided 55, 27, and 18 percent of calories from carbohydrate, fat, and protein respectively. The other provided 43, 39, and 18. In other words, one diet offered less carb and more fat than the other. The diets were not designed to lead to weight loss and were each tested for one month.

The results of this study have been reported to show that those eating the lower-carb diet reported feeling fuller for longer after a meal.

One of the authors of this study, Dr. Paula Chandler-Laney, reportedly commented that this effect might have to do with blood sugar control. It's possible that it might also have something to do with the higher fat in the lower carb diet.

Dr. Chandler-Laney also commented that a moderate reduction in carbohydrate intake may make individuals less susceptible to weight gain because of the effect such a diet may have on feelings of fullness and presumably overall food intake. And she's right.

But the other thing here is that less carb and less insulin in the body will likely mean less fat accumulation in the body for biochemical reasons that were explored in previous articles.

References

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Traditional Chinese Medicine perspective

Healthy aging

By JINGDUAN YANG, M.D.

Although the risk of disease and disability clearly increase with advancing age, poor health is not an inevitable consequence of aging. Many of the illnesses, disabilities, and deaths associated with chronic diseases are avoidable through known preventive measures.

Key measures include practicing a healthy lifestyle (for example, regular physical activity, healthy eating, and avoiding tobacco use) and the use of early detection practices (for example, screening for breast, cervical, and colorectal cancers, diabetes, and depression).

Throughout the middle and later years, people gradually develop signs and symptoms of aging like graying and thinning of the hair, ringing in the ears, hearing loss, infertility, diminished sexual function, menopause, forgetfulness, urinary and bowel incontinence, pain and weakness in the lower back, hip, and knees, reduced bone density, and increased risk of fractures.

Western medicine recognizes that some of these symptoms may be due to deficiency in sexual hormones such as estrogen and testosterone, which is why hormone replacement has become a focus of "antiaging" medicine.

Traditional Chinese medicine (TCM) offers a different perspective that is energy based. From a TCM standpoint, aging is a process of losing kidney qi and essence. Kidney here is not just the anatomic entity of the two kidneys we have in our lower backs but an energy subsystem called the kidney meridian.

Kidney qi and essence, according to the "Yellow Emperor's Classics," dating back to about 200 B.C., is responsible for brain development and function, including hearing, bone matrix, and function of bone marrow, sexual function and capacity to conceive, and regulation of the urinary tract and the bowels. This meridian reflects the mental functions of will power and motivation and emotions derived from fear.

Kidney qi and essence is inherited from our parents. Therefore, there is a wide range of differences among individuals, and the amount of kidney qi and essence within an individual is limited. Menopause in a woman is a hallmark of deficient kidney qi and essence. In addition, kidney qi and essence is the major support for other subsystems causing a wide variety of symptoms.

Other factors can make one lose kidney essence faster. For example, the dysfunction of other meridians can increase the demand and depletion of kidney qi and essence, for example, poor care during pregnancy and childbirth, heavy menstruation,



AGING PARENTS: A son amuses his parents by pretending to be a child. BY AN UNKNOWN ARTIST FROM THE "TWENTY-FOUR PARAGONS OF FILIAL PIETY" BY GUO JUJING.

excessive ejaculation in men, and excess of fear.

Meridian status of qi and essence is achieved through classic TCM techniques, such as pulse diagnosis. The primary interventions of TCM to balance meridians include acupuncture, Chinese herbs, and qigong. A brief discussion of a couple cases from our patients is provided to illustrate the TCM approach.

Amy, a 40-year-old woman, reported feeling like she was 90. She had stopped menstruating 10 years ago and lost sexual drive 9 years ago, which is about when she began to suffer from urinary incontinence and osteoporosis. In addition, she had severe seasonal depression and insomnia. She was assessed by classic Chinese medicine techniques and was diagnosed with severe kidney qi deficiency. She was treated with three weekly acupuncture sessions and given Chinese herbal supplements. Her symptoms improved significantly.

Cathy, a 65-year-old woman, complained of difficulty concentrating and memorizing. She attributed these symptoms to side effects from

the four medications she was taking to control her severe depression. She was evaluated with TCM techniques and determined to have kidney qi and essence deficiency and liver stagnation.

Twice per week, acupuncture and Chinese herbal remedies were given for a period of three months. In addition to improvement in cognitive function, she reported less low back and knee pain, more sexual satisfaction, reduced urinary incontinence, and better mood. With her physician's guidance, she also was able to decrease her psychotropic medications.

To age healthfully, people need to protect their kidney qi and essence as early as possible. Things that will help include having a healthy lifestyle, such as regular and enough sleep, eating a balanced diet, regular physical activity, having a healthy sex life, and coping with life with less fear.

Foods that are thought to replenish kidney energy, such as grains, dark green leafy vegetables (cooked), black soybeans, black sesame seeds, black mushrooms, walnuts, chest-

nuts, fish, shrimp, seaweed, lamb, and duck. Herbs thought to support kidney energy are ginseng, Rehmannia root, and lychee nut.

One can learn to stimulate acupuncture points with self-acupressure. Many relaxation techniques and energy exercises can positively affect meridian balance. We particularly recommend mindfulness-based meditation, Tai Chi, and qigong. Chinese medicine-based cultivation systems like Falun Dafa go beyond anti-aging and aim for spiritual enlightenment and eternal life.

Aging is a natural process of life, and healthy aging is achievable, particularly through integrating that best of Eastern and Western medicine. Therefore, it is advisable that you have a consultation with a well-trained doctor of traditional Chinese medicine to discuss an individual plan that uses ancient Chinese wisdom. However, you should do so in addition to the care you already get from your doctors of conventional medicine.

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SLEEP SOLUTIONS: Paul McCartney went to sleep and dreamed the tune to his hit song "Yesterday." DAVE HOGAN/GETTY IMAGES

Creative problem solving enhanced by REM sleep

(VOA News)—The story goes that in the 1790s, Samuel Coleridge fell asleep one evening at his desk, and when he woke he had the poem, "Kubla Khan," in his head. More recently, Paul McCartney went to sleep and dreamed the tune to his hit song "Yesterday." What is it about dreaming that spurs creativity? Some researchers from the University of California at San Diego are looking for clues.

Sleep researcher Sara Mednick explains that sleep has different parts. Sleepers can spend time in a deep dreamless sleep. They can also experience something called rapid eye movement, or REM sleep—that's when dreams occur. Mednick says scientists have long suspected a connection between REM sleep, dreams, and the creative process.

"If dreams are playing a role in creative discovery, we should be able to find it somehow, but for some reason, that's kind of confounded scientists for awhile," she said.

Mednick and her colleagues tried to find this connection by studying three groups of people: a control group which is a non-sleep group, a group in which subjects were able to nap but only has non-REM sleep, and a group that has REM sleep.

Mednick explains that the control group was also not allowed to sleep. They just sat quietly in a dark room with electrodes on their head, not sleeping, but very quiet during the whole 90 minutes that every-

one else is taking a nap.

All the people in each group were given a mental task to do before their rest period or nap. Mednick asked them to find the associations between groups of words. One example of such a word group: heart, sixteen, cookie.

In the afternoon, after resting, Mednick asked them to come back and complete the mental task—finding the word that connects the other three.

"And what we find is that in the REM group, people are performing better if they have had REM sleep than if they have had non-REM or quiet rest," she said.

Mednick says the mechanism of this creative word association isn't clear, but she and her colleagues think that this kind of creativity is housed in a part of the brain called the neocortex—that's where we bring our experiences and worldview together. Another part of the brain involved in this process is the hippocampus, which is where scientists think memory is processed.

"At some point ... and this is probably this influence of REM sleep, is that REM sleep allows this information to travel from the hippocampus to the neocortex, where it enters into this big field of this associative network. In there, information becomes more accessible to creativity, because you begin to associate items and bits of information that hadn't really been associated before," says Mednick.

By W. GIFFORD-JONES, M.D.

"Give Fae ginger ale for her queasy stomach," I suggested to my daughter.

"What's in ginger ale that's going to help?" she asked me. Telling her that my mother gave me ginger ale for this ailment wasn't the scientific reply she expected from me.

Unfortunately, my mother had never mentioned the magic ingredient in this drink, so I decided to research the health benefits of ginger and other spices.

A report on spices in Nutrition Action Health Letter contained an initial surprise for me and probably for some mothers. It reports little or



GINGER: PHOTOS.COM

no ginger in most ginger ale! And whether ginger is effective depends on whom you listen to.

GINGER

Dr. Suzanna Zick, an epidemiologist at the University of Michigan, reports four studies have been done on how ginger helps in treating morning sickness. Pregnant women were given

1,000 milligrams of ground ginger or 500 milligrams of ginger extract, for four weeks. In each case, ginger was superior to a placebo in easing this troublesome condition. Zick believes that ginger blocks the action of serotonin, a neurotransmitter in the bowel that can trigger nausea.

NASA, however, found that ginger was of little help in stopping motion sickness in astronauts when they were strapped into rotating chairs. Dutch scientists were more successful. They gave powdered ginger to naval cadets while in heavy seas. This didn't stop nausea or vertigo, but it did stop vomiting and cold sweats.

The Society of Obstetricians and Gynecologists of Canada says that the use of 1,000 milligrams of ginger (about one-half teaspoon), in divided doses, "appears to be safe" for morning sickness in pregnant women.

CINNAMON

Richard Anderson, of the U.S. Department of Agriculture, says that small amounts of cinnamon help to decrease blood sugar in diabetes patients. Sixty diabetic Pakistani patients, divided into two groups, were given 1 gram or 6 grams of ground cinnamon daily for 60 days. At the end of 40 days, the group receiving 1 gram of cinnamon had a decrease in blood sugar of about 25 percent and those receiving 6 grams had a drop of 29 percent.

Later studies by Anderson using 10 grams of cinnamon powder for diabetes patients showed only a decrease of 10 percent. Other studies in Holland and Germany using cinnamon

showed no change in blood sugar. No one can explain the discrepancy in these results. But Anderson believes the dosage might have been too low



CINNAMON: A product of Sri Lanka. LAKRUWAN WANNIARACHCHI/AFP/GETTY IMAGES

in Type 2 diabetes patients who were overweight.

Any cautions? No one knows if cinnamon reacts with other drugs. Anderson also suggests using a water extract of the spice when using it for a long time, as some ingredients in cinnamon can thin the blood. So check with your doctor before using cinnamon and other spices.

TURMERIC

I didn't realize that when I enjoy

curry at Indian restaurants or add mustard to a cheese sandwich I'm eating turmeric. Researchers are testing this spice as a cure for cancer and Alzheimer's disease. But it's actually curcumin in turmeric, the cause of the yellow color, which interests scientists.

Dr. Bharat Aggarwal, professor of cancer research at the Anderson Cancer Center in Houston, says curcumin induces a programmed death of cancer cells. In addition, it suppresses formation of new blood vessels that nourish tumors. Rats, for instance, get fewer cancers of the breast and colon when given curcumin. Currently patients with advanced cancers are being given this spice to see if it has any effect on cancer growth.

Researchers at Harvard have gone a step further and injected curcumin into the bloodstream of mice with Alzheimer disease-like plaques. A week later, studies showed a 30 percent decrease in these plaques. Research into how this spice affects humans with Alzheimer's disease is only in preliminary stages.

For the moment, adding a little spice to our life appears to be a sound idea. I just wish my mother were still alive so she could see how much I now know about spices. But there's a lingering question. If there's little or no ginger in ginger ale, I still can't tell my daughter why it helps a queasy stomach. If I'd only asked my mother!

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