Sometimes, in the blitz of health news we get daily, it can be easy to forget about more common nutrients that quietly—but dramatically—impact our health. I think choline is one of them.

Choline has actually long been considered essential for the brain, heart, liver, muscles, and prenatal development. And yet, only within the past 20 years has it been recognized as having an “adequate intake value” in terms of how much we should get in our diets. That lack of attention can put us at risk for deficiencies. After all, if you don’t hear much about something, how do you know if you’re missing it? In this Terry Talks Nutrition®, we’re going to examine choline and reasons you absolutely must get this critical nutrient every day.

Your Brain Needs Choline—But Common Drugs Deplete It

Adequate choline is very important to cells in the brain, especially for brain cells used for memory and nerve cell communication. However, long-term use of certain types of drugs can deplete the brain of its supply of choline. For example, if you suffer from allergies, you’ll want to be very careful with diphenhydramine, (one brand name is Benadryl). In an article published in the Journal of the American Medical Association (JAMA), researchers reported that diphenhydramine, along with drugs used to treat overactive bladder and depression, has “anticholinergic” activity in the brain. That means these drugs block the action of acetylcholine (a form of choline) in the brain, which translates into memory loss, attention deficits, and slower motor skills. Now, this wasn’t completely unknown before—it was accepted as one of the side effects of these medications. But if you’ve cut off a supply of a required nutrient, how healthy can you expect to be?

The JAMA study reported that individuals taking anticholinergic drugs for three years or more increased their risk of dementia by 54%. Other previous research has found similar results for brain function. Older adults taking at least 3 doses of an anticholinergic drug for more than three months increased their risk of cognitive impairment by 50%.

Choline is that nutrient. Now recognized as an essential ingredient for a healthy life, there is actually a wealth of research that shows it is as critical for developing healthy babies as it is for keeping adult minds and bodies operating in optimal health. Choline is a must for:

- Healthy aging
- Memory and focus
- Exercise performance
- Healthy prenatal cognitive development
- Liver detoxification
- Heart and arteries

**HERE IS THE FORMULA I SUGGEST:**

Whether you are looking to boost your energy levels, stay sharp mentally, and help you recover from exercise, I recommend taking 144 mg of choline, along with additional B vitamins three times daily.
Choline, The Essential Nutrient You’re Missing

Moms and Moms-to-Be Need Choline
Women who are pregnant or lactating should be getting plenty of choline. Researchers have documented a connection between choline intake during pregnancy and the mental health of the baby, including sub-optimal maternal intakes of choline and the later development of schizophrenia in the infant.

Schizophrenia doesn’t really “show” until an individual has reached young adulthood—about 20 years old. However, researchers noted that babies that showed motor skill impairment during infancy may also have a brain condition prior to birth that could make them prone to the disease, especially when combined with deficient choline. Choline intake is especially important during the second and third trimesters because of its critical role in brain development.

Choline during pregnancy also improves other brain-related factors, including attention span and spatial cognition—the ability to distinguish what’s happening in the environment around you, and how you learn to navigate in the world. In reviewing studies and laboratory models of Down syndrome, researchers at Cornell recommended increased choline intake for all pregnant women as an early intervention to improve the cognitive abilities of those affected by the condition.

But choline affects the motor skills of adults, too. A double-blind, placebo-controlled Dutch clinical study found that following choline supplementation, volunteers were able to rapidly hit the centers of targets in a computerized test more accurately than those in the placebo group. Pupil size—considered a standard marker of cognition and cholinergic activity—decreased after choline intake and matched up with the ability to make precise target hits.

Your Heart and Liver Need Choline
Choline has been found to lower levels of homocysteine, an amino acid that is linked to inflammation, high blood pressure, and other cardiovascular risks. A Dutch clinical study found that a high daily dose of added choline (in the form of phosphatidylcholine) was able to reduce homocysteine levels by 29% compared to placebo (by 15% on the first day) in men ranging from 50 to 71 years of age. Since folates and vitamin B12 can lower homocysteine as well, it is a wise idea to combine your choline intake with these crucial nutrients if you have concerns about your blood pressure.

Once choline is in short supply, it can’t help the liver rebuild tissue and regulate cholesterol properly. If the liver can’t process and remove toxins, the body is vulnerable to damage from a wide range of dangerous substances. Laboratory research in Japan has shown that only 5 weeks of a choline deficient diet created conditions for liver disease to take hold. This is one of the reasons why I believe that not just supplemental choline, but bioavailable choline, is so important. Rather than taxing the liver, it can get to work helping the liver.

Choline is Found in Foods, But Are You Eating Them?
Eggs are one of my favorite foods, and are an excellent source of choline and many other nutrients. But they have long been on the “bad foods” list due to erroneous ideas about cholesterol. Thank goodness common sense has prevailed, and recently health experts had to admit that dietary cholesterol often doesn’t have any effect on your actual HDL and LDL levels. However, this bad press meant that a lot of people were missing out on the natural choline that their parents probably got with every breakfast. One review found that adding just one egg per day to our diets would lift the numbers of pregnant women meeting the adequate intake of choline from 10% to 50%, and older men and women from 5% to 20%.

Other food sources of choline include spinach, wheat germ, milk, and shrimp. Clearly, a varied diet of whole, unrefined foods is best, but if you’re not regularly eating these foods and don’t plan to, I’d urge you to get supplemental choline into your regimen every day.

Conclusion
The need for choline has been known for some time, but it hasn’t been emphasized nearly enough. This required nutrient is a must for keeping your mental focus and memory, prenatal nutrition, sticking with your exercise regimen and physical activity, and helping your heart and liver. If you haven’t been giving choline much thought, I urge you to do so, and to add it to your daily regimen starting now.

B Vitamins & Choline
Getting a full range of B vitamins, including the active, methyl forms of B12 and folate and B6 as pyridoxal-5-phosphate (P-5-P) makes the work of choline even easier. B vitamins support your energy levels and focus, reduce levels of homocysteine and keep your heart and arteries functioning smoothly, and are crucial for prenatal nutrition. Prescription medications can deplete these valuable nutrients, and many people—up to 30%—cannot unlock them effectively from food sources. This is why I recommend the active forms of B12, folate, and B6: they require no conversion by the liver, and begin working almost immediately.

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