

Newsletter

Epigenetic Alterations and Aging

This month we're diving into Epigenetics. This is the study of how your behaviors and environment can cause changes that affect the way your genes work. Unlike genetic changes, epigenetic changes are reversible and do not actually change your DNA sequence, but they can change how your body reads a DNA sequence.

We are specifically going to focus on one of the strongest hallmarks of aging, Methylation. Methylation basically tells your genes what to do. Methylation is very important for overall health, particularly its role in supporting vital cellular processes.

Methylation is the process of adding a methyl group (CH₃) to DNA, proteins, and other molecules. Methylation happens billions of times per second in every cell in your body and is used in so many processes in your body.

Methylation's pivotal roles:

- ❖ Gene Expression Regulation: Influencing which genes are turned on or off
- ❖ Detoxification: Facilitating the removal of toxins, waste products and hormone balance
- ❖ Neurotransmitter Production: Affecting mood, cognition, and overall brain function
- ❖ Immunity and allergy – Affecting autoimmune responses and food allergies
- ❖ Genetic expression and DNA repair – Causing susceptibility to certain cancers and premature aging
- ❖ Metabolism and energy – Creating chronic fatigue, tiredness, weight gain, and diabetes
- ❖ Cardiovascular health – Causing heart attacks, stroke, and blood clots
- ❖ Healthy Aging: Potentially slowing down age-related cellular changes

Dr Kara Fitzgerald and team (author of our book of the month Younger You) showed that a diet and lifestyle supporting methylation reversed biological age by over three years in just 8 weeks time. The participants followed a plant-centered diet (at least 7 servings/day) that restricted refined carbohydrates, and included nutrient-dense animal protein: 5–10 eggs per week, 6 ounces of animal protein per day, and 9 ounces of liver (or an encapsulated liver supplement) per week. The participants also consumed a probiotic supplement and a high-polyphenol fruit and vegetable powder twice a day. In addition, they were encouraged to participate in at least 30 minutes of moderate-intensity physical activity on 5 days per week, get a minimum of 7 hours of sleep per night, and complete two 10-minute breathing sessions per day.

Announcements

Dr. Amy's "OM" Seminar
Will Go Out
Pre-Recorded
Last Week in June



Foods That Support Methylation

Certain nutrients are essential for optimal methylation. Including these foods in your diet can help to support this vital biochemical process:

- ❖ Leafy Greens: Spinach, kale, and other leafy greens are rich in folate (vitamin B9), which is a key nutrient for methylation.
- ❖ Cruciferous Vegetables: Broccoli, brussels sprouts, and cauliflower contain compounds like sulforaphane and indole-3-carbinol, which support detoxification pathways that are linked to methylation processes.
- ❖ Avocado: This nutrient-dense fruit is a good source of several B vitamins, including folate and vitamin B6, both of which are important for methylation reactions.
- ❖ Beets: Act as a methyl donor, contain betaine, high levels of folate and antioxidants and increases blood flow to the brain
- ❖ Beans and Lentils: These legumes provide folate and other B vitamins essential for methylation. They also offer a source of plant-based protein and fiber.
- ❖ Salmon and Other Fatty Fish: Rich in omega-3 fatty acids and vitamin B12, which are both involved in methylation processes. Omega-3s help maintain cell membrane integrity, and vitamin B12 supports the
- ❖ Nuts and Seeds: Almonds, sunflower seeds, and flaxseeds are good sources of nutrients such as folate, vitamin B6, and zinc, which support methylation pathways.
- ❖ Eggs: A strong methyl donor containing B12 and choline.
- ❖ Liver: A superfood methyl donor containing Bs, Zinc, betaine, and choline.

As you can see DNA methylation has a lot of power over your health and wellbeing but YOU have tremendous influence over it. The choices you make every day including how you live the 4 Pillars (managing stress, your diet, how you move, and how you sleep) can positively or negatively influence how and where those methylation donors are placed and therefore how your genes are expressed.

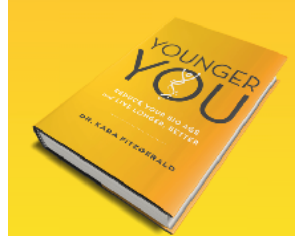
Unlike chronological age (the number of years you've been alive), biological age is modifiable. While you can't change how old you are, you may actually be able to slow down how quickly you're aging!

Dr. Amy



Book of the Month

**Live Longer and
Live Better Thru
Science**



Video of the Month

**How To Reverse
Your Biological
Age with Dr.
Kara Fitzgerald**



Supplement Highlight

Liver Beef

- Provides liver (bovine) tissue.



Recipe of the Month

Rainbow Salad

This is a quick and simple way to get in a large amount of your epinutrient-rich foods.



Salad Dressing

Try this delicious and preservative free Tahini-Lemon dressing.

