Younger Skin
Nutrients reduce wrinkles, protect from sun damage

CoQ10 improved wrinkles

CoQ10 is a vitamin-like nutrient naturally present in every cell of the body, and helps the cells produce energy. Cosmetics companies use CoQ10 as an ingredient in topical formulas, but research on the skin effects of taking CoQ10 as an oral supplement is very limited. In this study, 33 healthy volunteers, average age 53, took a placebo, 50 mg, or 150 mg of CoQ10 per day.

After 12 weeks, both CoQ10 groups saw improvement in wrinkles around the eyes, and the high-dose group also saw wrinkles improve around the mouth, nose, and lips. CoQ10 did not hydrate the skin or protect from UVB light in this study.

Discussing the findings, doctors said taking CoQ10 helped reduce seasonal deterioration in skin elasticity and improved some visible signs of aging, including significantly reducing wrinkles and fine lines, and improving skin smoothness.

Rosemary and grapefruit extracts

Some plants contain polyphenols that may protect from the aging effects of sunlight. In this pilot study, 90 women with pale, fair, or darker white skin showing some effects from aging and sun damage, took a rosemary-grapefruit polyphenol extract. Doctors periodically exposed the women to ultraviolet-A and ultraviolet-B (UVA and UVB) light during several months taking the supplement.

The women began to show decreased skin redness and oxidation from UVA and UVB exposure as soon as two weeks after starting to take the rosemary-grapefruit supplement. Wrinkles and skin elasticity also improved over the course of the study.

Doctors said the benefits of rosemary and grapefruit polyphenols likely come from reducing oxidation and inflammation of the skin, and that taking rosemary and grapefruit extract may be a complementary nutritional strategy to avoid the negative effects of sun damage, helping preserve smoother, younger-looking skin.

Reference: Biofactors; August, 2016, Published Online

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Diabetes Update
Nutrients improve insulin levels, metabolic factors, and reduce chances for developing type 2 diabetes

Choline, betaine, and insulin resistance
Choline and betaine aid liver function, and help cells reproduce. In this study, doctors measured the diets of 2,394 adults from the general population.

Both men and women who got the most choline and betaine had the least insulin resistance, while men and women who got the least choline and betaine had the greatest insulin resistance. When insulin resistance is high, the body needs larger amounts of insulin to metabolize and use glucose, or sugar. Chances for developing type 2 diabetes increase as insulin resistance becomes more severe.

Doctors said choline and betaine could help alleviate inflammation, reduce oxidative stress, and help normalize metabolism, reducing chances for developing type 2 diabetes.


Magnesium reduces chances for diabetes
Doctors who reviewed 18 diabetes studies said that good magnesium levels in the diet reduce chances of developing type 2 diabetes. In nine of the studies covering 670 people, those taking magnesium supplements had lower fasting blood sugar levels compared to placebo.

In three of the studies, covering 453 people, those who took a magnesium supplement had better blood sugar levels compared to placebo two hours after a meal. And, in five of the studies, doctors found those with better magnesium levels from diet and supplements had less insulin resistance.

Discussing the findings, doctors said taking magnesium supplements has a beneficial role, improves glucose handling in those with diabetes, and improves insulin sensitivity in those who have greater chances of developing type 2 diabetes.

Reference: PLoS-One; July, 2016, Published Online

Heart
Nutrients extend life, help ensure a healthy childhood

Selenium and CoQ10 extend life
Every cell in the body needs selenium to function properly, and CoQ10 helps each cell produce energy. In this study, 668 healthy older adults took 200 mcg of selenium plus 200 mg of CoQ10 per day, a placebo, or no treatment.

Doctors divided each of the three groups into low, medium, and high-selenium based on how many micrograms of selenium per liter of blood they had at the start of the study.

In the group starting with the lowest circulating levels of selenium, those taking selenium supplements were 12 percent less likely to die from heart disease over the four-year study period compared to placebo or no treatment.

In the middle-selenium group, chances were 8 percent lower in the selenium supplement group, and in the high-selenium group, chances were 4.5 percent lower for those taking selenium supplements.

Fiber in infancy means healthier kids
Doctors measured fiber in the diets of 2,032 infants just over one year old. Following up five years later, at age six, doctors measured body fat, HDL cholesterol levels, triglycerides, insulin, and blood pressure, and combined into a cardio-metabolic factor score.

Each one-gram-per-day increase in dietary fiber increased HDL—the “good” cholesterol—and lowered triglyceride levels, and infants with higher fiber levels had better overall cardio-metabolic scores. Kids who got more fiber from whole foods such as potatoes, fruits, and vegetables had better cardio-metabolic scores than kids whose fiber came mostly from cereals.

Doctors said that even though the effects were modest, high fiber in infancy reduces the cardio-metabolic disease burden on society, and increases chances for a healthy adult life.

Reference: PLoS-One; July, 2016, Published Online
Healthy Birth, Healthy Life
Nutrients delay aging, support healthy pregnancy

Vitamin C, folate, potassium and telomeres
Telomeres are the end-caps that protect each strand of chromosomes in every cell. Chromosomes contain the DNA instructions to reproduce a healthy cell, but each time a cell divides, telomeres shorten, eventually stopping cell division. The longer the telomere, the younger biological age of the organism.

In this study, doctors measured the nutritional value in the diets of 1,958 Korean men, age 40 to 69, and followed up 10 years later to measure telomere length. There were no differences in men over age 50, which doctors said was probably because the older participants got fewer nutrients overall. For men under age 50, those who consumed the most vitamin C, folate, and potassium had longer telomeres than men under 50 who got less of these three nutrients, indicating younger biological age.

Omega-3 and pre-term births
Taking the omega-3 fish oils DHA and EPA during the last half of pregnancy reduced pre-term births and increased birthweight. In this study, 2,399 pregnant women took a placebo or 800 mg per day of DHA plus 100 mg of EPA per day during the second half of pregnancy.

Women who took DHA with EPA had 51 percent fewer very-pre-term births compared to placebo, and several more post-term births, with fewer of the omega-3 infants needing neonatal intensive care. The omega-3 kids weighed an average of 2.5 ounces more than kids of moms who took the placebo. Also, fewer omega-3 children were low birth weight.

Doctors said the findings are important worldwide because, compared to pre-term babies, full-term babies are much more likely to survive and be healthy.

Reference: Journal of Human Nutrition & Dietetics; August, 2016, Published Online

Indian Wisdom
Ancient Ayurvedic herb has body mass and heart health benefits

What is ashwagandha?
Ashwagandha, Sanskrit for “the smell of a horse”—meaning to impart the vigor and strength of a horse—is one of the most powerful herbs in Ayurvedic medicine. The herb contains many compounds with medicinal benefits including support for the immune system, high antioxidant properties, and as an “adaptogen,” which helps the body adjust to stress.

Weight loss and chronic stress
Chronic stress has a link to many health conditions, one of the most common being obesity. In this study, 52 adults under chronic stress took a placebo or 300 mg of ashwagandha twice per day.

After eight weeks, the placebo group had lost 1.5 percent of body weight compared to 3 percent weight loss for those taking ashwagandha. Body mass index scores also improved, with the placebo group improving 1.4 percent, and the ashwagandha group improving 3 percent.

Cardio-respiratory endurance
Doctors wanted to test the effects on endurance and quality of life in healthy, athletic male and female adults. In this study, 50 healthy, athletic men and women, age 20 to 45, with normal body mass index scores between 18.5 and 24.9, took a placebo or 300 mg of ashwagandha root extract twice per day.

After eight weeks, compared to the start of the study, those taking ashwagandha saw an increase in maximum oxygen capacity 3.5 times greater than the placebo group. After 12 weeks, those taking ashwagandha saw a further 15 percent increase in maximum oxygen capacity, which was also three times greater than the increase in the placebo group. Those taking ashwagandha reported better psychological health and having more positive social relationships.

Reference: JEBCAM; April, 2016, Published Online
Better Fitness, More Strength
Pycnogenol® improved muscle mass and fitness

**Nutrient reduced symptoms of fatigue**

After age 50, the body begins to lose muscle mass and strength. In this study, 64 healthy adults, age 70 to 78, who complained of fatigue participated in a controlled exercise program with guidance on healthy lifestyle changes, with or without taking 150 mg of Pycnogenol per day.

After two months, compared to those who did not take Pycnogenol, those who did saw three times greater improvement in endurance in daily tasks such as carrying a five-pound object. The Pycnogenol group also saw more than double the improvement in stair-climbing and walking distance, and a 46 percent gain in overall fitness scores.

Protein in the urine, a possible sign of muscle loss, was 40 percent better for Pycnogenol, while signs of oxidative stress decreased. Doctors also saw an improvement in heart-pumping function, and said that supplementing with Pycnogenol can improve muscle strength and general fitness in older adults with fatigue.

**Reference:** Minerva Ortopedica e Traumatologica; 2016, Vol. 76, No. 3, 120-30