

# Featured Topic: Glutathione (5 slides)

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# Glutathione

- The body can make two antioxidants – the rest must be obtained in the diet
- One is superoxide dismutase and the other is **glutathione**
- Mechanism of action
  - Neutralizes free radicals
  - Regenerates spent antioxidants including Vitamins C and E
  - Helps the immune system fight off infections and cancer
  - Critical for detoxification: sends poisonous toxins through the liver and out of the body
- Glutathione is critical to life
  - All cells in the body can synthesize glutathione
  - People born unable to properly metabolize glutathione usually suffer from serious illnesses and will probably die early in life

# The Two Faces of Glutathione

- Glutathione occurs in two forms
- The desirable form – reduced glutathione
  - Active form
  - Able to neutralize free radicals and provide all the health benefits of glutathione
- The undesirable form – oxidized glutathione
  - Inactive glutathione
  - Must be regenerated to be effective

# Low glutathione levels

- A healthy child has about **99% of their glutathione in the active form**, and 1% or less in the inactive form
- A healthy young adult has about **90% of their glutathione in the active form**, and about 10% in the inactive form
- But the older we get, the less active glutathione we have, and the more inactive glutathione is present
- In fact, **by age 65 we have up to 50% less of the active form of glutathione**

## Other factors which reduce glutathione levels

- **Disease**
- **Poor nutrition**
- **Toxins and pollution**
- **Infections**
- **Trauma**
- **Drugs—especially acetaminophen**
- One study found that children with autism have only 60% active glutathione (and 40% in the inactive form)

# Restoring glutathione levels

- The difficulty with supplemental glutathione is that it breaks down rapidly when taken orally
- The only effective way to get glutathione in its active form was to have it injected
  - Inconvenient
  - Very expensive (up to \$1000 a treatment)
- New research has found a way to stabilize glutathione so that it remains in its active form

# French Research on Glutathione

- French researchers have patented a stable, oral glutathione
- Tablet dissolves in the mouth
- Shown in clinical research to increase glutathione ratios (active versus inactive) **230%** over unprotected glutathione
- Also improved glutathione ratios 73% better than NAC – a glutathione precursor

# Who can benefit from glutathione?

- Much of the research on glutathione has focused on brain diseases, especially Parkinson's disease
- Also use for
  - Cancer
  - Autism
  - Diabetes
  - Depression
  - Arthritis
  - Lyme disease
  - HIV/Aids
  - Any disease of the brain/nervous system

Take 150 mg of active (reduced) glutathione twice daily, allowing it to dissolve under the tongue.  
Don't eat or drink until the tablet has dissolved.

# Sit Less, Live Longer (1 slide)

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# Get out of the chair and live longer

- 8000 American adults ages 45 and older wore physical activity monitors as part of a research study conducted between 2009 and 2013
- Investigators then tracked their health and mortality rates for the next 4 years
- Results: people who replaced just **30 minutes of sitting a day** with low intensity physical activity reduced their risk of early death by **17%**
- Increasing activity to moderate or intense exercise(30 minutes daily) cut the risk of early death **by 35%**
- 1 in 4 American adults sits for **8 or more hours a day**

# **A Closer Look at: Migraine Headaches**

## **(4 slides)**

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# Migraine Headache Pain

- Headache pain is the 4<sup>th</sup> most common reason that people visit the emergency room
- Opioids are commonly prescribed (35% of the time) in the emergency room to treat migraine headache pain
- Opioids (related to morphine)
  - Have many **adverse effects**: euphoria, sleep problems, nausea, seizures, constipation, breathing problems, and sedation
  - **Addiction**: tolerance develops after 2 weeks of continuous use, with a 35 times reduction in potency; tolerance leads to **increasing frequency of use** and then **dependence**

# Probiotics for Migraine Prevention

- 40 people who suffered from migraine headaches were treated with a combination of probiotics strains or a placebo for 8 weeks (included Lactobacillus and Bifidobacterium strains)
- Results: versus placebo, people receiving probiotics had a
  - 40% decrease in migraine frequency
  - 30% decrease in migraine pain
- **Did you know?** People with migraines also have higher rates of digestive issues associated with 'leaky gut' (especially irritable bowel and celiac disease)
- Probiotics heal leaky gut and prevent toxins – that may act as migraine triggers – from entering the body

# More natural ways to stop headache pain

- **Inflammation** is one of the root causes of many types of headaches
  - **Curcumin** and **boswellia** are powerful anti-inflammatories with no adverse effects!
  - Boswellia has been shown to reduce the intensity and frequency of chronic cluster headaches
- **DLPA** helps increase the brain's natural pain-killing compounds (endorphins and enkephalin)
- About half of migraine sufferers are **magnesium** deficient;
  - 41% reduction in migraine frequency after 600 mg of magnesium daily (12 week study)
  - Magnesium versus a steroid drug/anti-nausea combination in 70 patients with acute migraine headache – **pain reduction was about 50% better in the magnesium group** than in the drug group
- Many headache sufferers are also serotonin deficient – **P-5-P** has been shown to increase serotonin levels and reduce the pain and frequency of headaches

**Cancer Prevention:  
3 Food Toxins to Avoid  
(4 slides)**

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# Some cancer risks are beyond your control

- Genetics (family history)
- Aging
- However, there are dangerous toxins in food that have been linked to cancer that you CAN avoid, or limit your exposure to, if you pay attention...

# Sugar: Cancer loves to use Sugar as Fuel

- Researchers followed 400 people with head and neck cancers, and assessed their diets for one year before and one year after treatment
- Results
  - Patients who consumed **the most total carbs and sugar** in the year before their cancer treatment had the **greatest risk of dying**
  - Consuming **fats and small amounts of starchy** (low glycemic index) **foods** was associated with *reduced* risk of dying (any cause) as well as a reduced risk of cancer recurrence
- Research has shown that
  - cancer cells can use sugar to stimulate cancer cell growth
  - Sugar contributes to weight gain, which increases inflammation, which is also a risk factor for cancer

# Processed Foods Wrapped in Plastic

- Researchers in France tracked data from 100,000 adults, including detailed dietary questionnaires, over 5 years
- Results: a 10% increase in 'ultra processed' foods was associated with a greater than 10% increase in overall cancer risk
- Ultra processed foods
  - High in trans fats, sugar, and sodium
  - Low in fiber and vitamins
  - Contain cancer-causing chemicals such as nitrites
  - Wrapped in plastic, which can also leach chemicals into food
- Ultra processed foods: mass produced bread and baked goods, soda, instant noodles and soups, packaged snacks, chicken nuggets, etc.

# Glyphosate

- Glyphosate, a common weed killer used by many farmers – better known by its brand name: RoundUp
- US farmers use about 280 million pounds of RoundUp a year, or **1 pound for every person in the country**
- Scientists have linked RoundUp with higher rates of non-Hodgkin lymphoma in farmers.
- Avoid RoundUp by eating organic foods – recent study found that eating **organic forms of fruits typically high in pesticides** (including strawberries, apples, and grapes) could reduce risk of disease by 94%

# Reversing Diabetes (2 slides)

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# Are you on the road to diabetes?

- The number of American adults with diabetes has tripled in the last 20 years
- More than 1 in 3 Americans has pre-diabetes – the last stop before type 2 diabetes - and 90% of them don't know it
- The good news? Pre-diabetes can be REVERSED. Type 2 diabetes, daily blood tests, drugs, and insulin injections CAN be avoided!
- Make healthier food choices, get some exercise, and lose weight!

## More help to stop pre-diabetes: *Hintonia latiflora*

- Known in Europe, especially in Germany, for over 60 years as a treatment for diabetes
- **Ideal for people with “pre-diabetes”** – fasting blood sugar levels between 100-125 and HbA1C levels of 5.7% – 6.4%
- Effectively lowers blood sugar and HbA1c without adverse effects
- Dosage: 20 mg polyphenols from Hintonia one to three times daily, along with essential vitamins and minerals