

# Curcumin for Cancer (7 slides)

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# Curcumin – for cancer

- Curcumin's amazing properties
  - Anti-inflammatory
  - Antioxidant
  - Antiviral and antifungal
  - **Anticancer**

**There is almost no condition, including cancer, that cannot benefit from curcumin!**

# Curcumin is anti-cancer

- Why the interest in curcumin as a cancer treatment?
- Curcumin stops
  - Cancer cell formation
  - Cancer cell growth
  - Cancer cell spread
- Also, curcumin activates the body's own cancer-killing system, the p53 pathway
  - p53 stops mutated, potentially cancerous cells from dividing and calls in DNA repair teams
  - If DNA can be repaired, p53 allows the cell to go back to work
  - If DNA cannot be repaired, p53 causes the cell to self-destruct (apoptosis)
- All this **without the toxic effects** associated with conventional chemotherapy and radiation therapy

# A look at some research...

- In a lung cancer cell study, curcumin reduced the metastatic spread of **lung cancer** by over 30%
- Curcumin inhibited the spread of invasive **bladder cancer** cells by 40% (cell study)
- Curcumin reduced the size of **pancreatic tumors** by 17% (animal model)
- In a study using **breast cancer** cells, curcumin reduced cancer cell proliferation (reproduction) by as much as 60-70%
- In an animal model of **prostate cancer**, animals receiving supplemental curcumin experienced a reduction in tumor size of up to 65% versus animals who did not receive curcumin

# Curcumin can be used with conventional cancer treatment

- Chemotherapy or radiation therapy can be very toxic to the entire body, not just cancer cells
- Sometimes a less than optimal dose has to be used in order for the patient to tolerate the adverse effects
- Curcumin can help these treatments work more effectively so a smaller (less toxic) dose can be used
- Curcumin can help reduce the adverse effects of these treatments as well

# New Research in combination with Cancer Treatment

- 21 patients with advanced head and neck cancer treated with chemoradiation
  - All patients treated with radiation therapy; half also received curcumin
  - 58.8% of patients receiving curcumin + radiation demonstrated response versus 41% of patients in radiation group
  - 15% greater tumor reduction in patients receiving both radiation and curcumin versus those on chemoradiation only

# Additional Research

- In a cell study looking at triple negative breast cancer cells, curcumin nearly **doubled the effectiveness of the chemotherapy drug 5-FU** in killing breast cancer cells
- Curcumin **prevented chemotherapy-induced kidney damage** (animal model) in the treatment of breast cancer (while also improving the drug's effectiveness)
- Curcumin **reduced the severity of side effects** (problems with urination and urinary frequency) associated with radiation treatment for prostate cancer
- Curcumin has been shown to **increase the effectiveness of drugs** used to treat bladder, breast, colon, pancreas, gastric, liver, blood, lung, prostate, cervix, ovary, head and neck, and brain cancers, as well as multiple myeloma, leukemia, and lymphoma

# What to remember

- Curcumin is the medicine, turmeric is the spice
- Combining **curcumin** with **turmeric essential oil** is a safe and effective way to ensure absorption
- Curcumin can be combined with other anti-cancer ingredients such as grape seed or boswellia
- Dosage: up to 750 of enhanced absorption curcumin daily; in some cases may increase to 1500 mg daily

# **Are You Too Tired To Quit Sugar?**

## **(2 slides)**

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# Why can't you get past the sugar cravings?

- Researchers studied the sleep quality and dietary patterns of nearly 500 women between the ages of 20 and 76, who participated in a year-long study
- The participants reported how they were sleeping and completed food questionnaires for what they ate, and how much of it
- Results
  - 30% of the participants had poor sleep quality or insomnia
  - The women who didn't sleep well, or didn't sleep enough, **consumed an average 500-800 additional daily calories, including more sugar and caffeine**, versus women who got good quality sleep

# The sleep – sugar consumption connection

- Lack of sleep can interfere with making good decisions – it is easier to give into impulsive snacking when tired
- Lack of sleep interferes with proper hormone production, and can actually trigger the hormones that stimulate hunger!
- **Or does sugar consumption trigger insomnia?** A study looking at the dietary intakes of over 50,000 people found that women who ate diets high in refined carbs were significantly more likely to experience insomnia than those that primarily ate low glycemic index foods
- To get better sleep and stop sugar cravings:
  - Increase protein intake
  - try 125 – 250 mg of concentrated plant oils about an hour before bed: mandarin, lemon balm, ravintsara, lavender

# Nutrient of the Day: Magnesium (3 slides)

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# The Mineral Magnesium

- **70-80% of Americans** do not get the minimum recommended daily intake of magnesium (420 mg daily for men and 320 mg daily for women)
- Magnesium is needed for energy production, bone formation, nerve impulse conduction, muscle contraction, and normal heart rhythm
- Signs of low magnesium
  - Fatigue
  - Muscle cramps or spasms
  - Muscle weakness
  - Irregular heartbeat
  - Anxiety

# Uses for supplemental magnesium

- PMS symptom relief
  - Magnesium supplementation for 3 months reduced PMS symptoms by up to 35% (headache, tension, anxiety, mood swings, bloating)
- High blood pressure
  - Supplemental magnesium reduced blood pressure by about 2-4 points
  - Just a 2-3 point drop in blood pressure can reduce stroke risk by up to 12%
- Muscle spasms and cramping
  - Magnesium stabilizes nerve fibers; low magnesium levels leads to hyper responsive neuromuscular activity – in other words, muscle tremors, spasms and weakness [for example, restless leg syndrome]
- Carpal Tunnel syndrome and nerve pain
  - Pair magnesium with P-5-P (active form of vitamin B6) and Zinc to relieve carpal tunnel syndrome pain – can cure carpal tunnel without surgery!

# Forms of magnesium

- Magnesium, as a dietary supplement, is found in many forms
  - Magnesium citrate (magnesium + citric acid)
  - Magnesium oxide (magnesium + oxygen)
  - Magnesium hydroxide ALSO known as “Milk of Magnesia”
- These forms of magnesium are poorly absorbed and in fact some of them have laxative effects
- Magnesium glycinate chelate is bound to an amino acid
  - Very well absorbed
  - No laxative effects
- Take up to 400 mg daily of magnesium glycinate chelate with P-5-P (active form of vitamin B6) and Zinc