

Featured Topic: Prostate Cancer (8 slides)

Terry Talks Nutrition

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Flawed screening for prostate cancer

- One million men a year undergo prostate biopsies
- Based on these biopsies, thousands of men will then have treatment for cancer **they don't need**, leaving them impotent and wearing adults diapers for the rest of their lives
- A recent study of 1,643 men with prostate cancer found that 10 years later, **there was no difference in survival** between that those who were treated with surgery or radiation and those who just monitored their health
- It can be difficult for patients AND doctors to accept that some cancers **don't need aggressive treatment**

The two types of prostate cancer

- Most cases of prostate cancer are **harmless**
 - Slow growing and don't spread
- Some prostate cancers are very aggressive and should be treated
- The problem is – it is very hard to tell the two types apart with the tests that are currently available
- The most common screening test used is the PSA – prostate specific antigen – test
 - Substance produced by the prostate gland
 - Higher PSA levels associated with increased risk of prostate cancer
 - “low risk” is PSA of 4 or less
 - “high risk” is PSA of 10 or higher – up to 67% increased risk of cancer

What makes Prostate Cancer dangerous?

- What could be the difference between harmless and aggressive prostate cancer?
 - **1. Genetics.** A new study found that men with the BRCA2 gene (the same gene associated with breast cancer) are **8 times more likely** to experience prostate cancer than men who do not have this gene
 - **2. Inflammation.** A new study reports that men with **chronic prostate inflammation were 1.78 times more likely to develop prostate cancer**, and had **2.24 times** the risk of having an aggressive form of this disease

Natural intervention for prostate cancer

- Goals
 - Reduce inflammation
 - Bring down PSA levels
 - Reduce cancer cells ability to respond to hormonal triggers
 - Stop cancer cell replication and spread
- Nutrients to consider: curcumin, grape seed, pomegranate, vitamin D and silybin

Curcumin and Prostate Cancer

- Tumor cells in prostate cancer have been found to produce **inflammation causing compounds**, which is linked to the cancer's ability to spread
- A 2012 study found that curcumin **blocked the ability of prostate cancer cells to release the inflammatory compounds**, and therefore there was less spread of the prostate cancer (called metastasis)
- Curcumin has also been shown to **make prostate cancer cells more sensitive** to conventional chemotherapy drugs
 - Small dosage of the drug is required, so adverse effects are reduced
 - Overall effectiveness is increased

Curcumin and Radiation Therapy

- 40 patients being treated for prostate cancer with external beam radiotherapy (EBRT) and drug therapy to reduce hormone levels
- Curcumin (1,000 mg, 3 times daily) protected against the most common adverse effect experienced with radiotherapy – urinary problems
- The greatest changes were
 - a 50% reduction in numbers of men with daytime urinary frequency
 - 30% reduction in men with sleep disturbances related to urinary issues
 - reductions in pain with urination, urinary leakage, travel restrictions because of urinary urgency, urinary urgency in general, and limitation of daily activities related to urinary problems

Plus....

- **Pomegranate** – shown to kill prostate cancer cells and slow the spread of prostate cancer
 - Researchers looked at how long it took prostate specific antigen (PSA) levels to double, which is a sign of prostate cancer progression (the shorter the doubling time the more aggressive the cancer)
 - Pomegranate quadrupled the doubling time versus the results of the placebo group
 - Note: the use of PSA screening test frequently causes false positives or identifies cancers that don't need treatment; there is some disagreement on its value as a cancer predictor
- **Grape seed** – like curcumin, grape seed blocks inflammatory compounds associated with cancer's spread
 - Researchers found men who used grape seed extract were over 40% less like to develop prostate cancer
 - Those who used grape seed extract long term were over 60% less likely to develop cancer

- Aggressive prostate cancer has also been linked to **vitamin D** deficiency
 - A recent study found that men with low vitamin D levels were 4-5 times more likely to have aggressive prostate cancer than men with normal vitamin D levels
- **Silybin** from milk thistle
 - In cell studies, exposure to silybin and other compounds from milk thistle was associated with up to an 85% reduction in prostate cancer cell death
- Dosage: 1500 IU of vitamin D 3, plus 750 mg of curcumin, grape seed, pomegranate and silybin daily

A Closer Look At: Branched Chain Amino Acids (3 slides)

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BCAA – The Muscle Builders

- Amino acids are the building blocks of protein
- Three amino acids – leucine, isoleucine, and valine – have “side chains” on their chemical structure, which is why they are called “branched chain”
- BCAA are critical for muscles – up to **1/3 of muscle protein** is formed from BCAA

A few of the studies on BCAA

- In people being treated with steroids for joint diseases like rheumatoid arthritis, BCAA supplementation for 12 weeks **increased both muscle strength and muscle mass**
- In frail, elderly people, supplementation with **BCAA increased muscle strength by 10%**
- Athletes taking BCAA before rigorous exercise had a **20% reduction in post-exercise pain**
- In a two year study of people with cirrhosis, 27% of the control group (no BCAA) went on to develop liver cancer versus just **12% of patients who were given BCAA**

BCAA from Whey Protein

- BCAA and 6 other amino acids are essential, meaning they can't be synthesized in the body, they must be consumed in food
- On a per gram basis, one of the richest food sources of BCAA is eggs
 - Other food sources include chicken, fish and nuts
- Whey protein contains ALL the essential amino acids, plus nine other amino acids to form a complete protein
- Add a scoop of whey protein powder containing amino acids, including BCAA, plus curcumin, boswellia, DLPA and ginger (for increased pain relief) to smoothies or drinks