

**Featured Topic:
Osteoporosis Prevention
(4 slides)**

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A Common Problem for Women

According to the National Osteoporosis Foundation:

- **1 out of every two women** over age 50 will break a bone because of osteoporosis
- A woman's risk of breaking a hip is equal to her *combined* risk of breast, uterine, and ovarian cancer
- Because estrogen plays such a major role in bone density, decreased estrogen levels after menopause significantly impact bones
 - A woman can lose up to **20% of her bone density** in the first 5-7 years after menopause
- A 10% increase in bone mass can reduce fracture risk by 50%

Calcium Alone Does NOT Assure Strong Bones!

- Calcium is a small player
- The countries with the lowest calcium intake often have the highest rates of bone health (they also walk more)

Taking a calcium-only supplement was associated with a **50% increased risk** of heart attacks!

Calcium needs to be *balanced* by other nutrients for proper utilization!

In addition to calcium, your bones need these nutrients:

- Vitamin D3
 - Regulates dietary calcium absorption and helps with bone formation (mineralization)
 - Calcium in combination with vitamin D **reduced risk of hip fracture by 35%** with NO increase in heart attacks
- Vitamin K (menaquinone)
 - Helps direct calcium away from blood vessels (where it can be lead to hardening of the arteries or “arterial calcification”) and into bones where it is needed
 - 12 months of supplementation with vitamin K2 protected against bone deterioration in postmenopausal women (control group saw increased deterioration despite both groups also taking calcium and vitamin D)
- Boron
 - Increased vitamin D absorption by 19% and reduced c-reactive protein by 37% (high levels of CRP are associated with bone loss)
- Magnesium, Zinc, Copper, Manganese
 - Trace minerals that all play important roles in bone formation
- Lactobacillus sporogenes
 - Promotes mineral absorption, especially calcium

Building Strong Bones

- Basic foundation – “daily multiple for bones”
 - Calcium, vitamin D3, Vitamin K2, Boron, and trace minerals (magnesium, zinc, copper, manganese), Lactobacillus sporogenes
 - Take daily, morning and evening
- Plus advanced bone support
 - **Strontium**: trace mineral needed for the formation of new bone tissue - slows the breakdown of old bone tissue
 - Take 680 mg strontium citrate daily, separately from calcium-containing supplements (at least 2 hours apart)
 - Silica: mineral from horsetail - increases calcium absorption and retention in bones **by over 50%**
 - Take 20 mg daily

Gut/sleep connection (2 slides)

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The Sleep-Gut connection

- The bacteria that naturally colonize the intestinal tract play a role in many health factors, including mood, stress, pain, hormones, and **sleep**
- 37 adults (average age 65) provided stool samples (for bacteria analysis), and completed sleep diaries and tests of mental function
- Results
 - Low numbers of certain common gut bacteria were significantly associated with poor sleep quality and less effective mental function
- A recent animal study found that prebiotic supplementation was associated with longer time spent in the restful stages of sleep, as well as faster recovery from stress

Tips for selecting probiotics supplements

- Probiotics are alive – look for **guaranteed numbers at time of use**, not at “time of manufacture”
- The **right kind** is more important than a big number
 - Look for probiotics that are naturally found in the human gastrointestinal tract
 - Examples: *Lactobacillus plantarum*, *Lactobacillus rhamnosus*, and *Bifidobacterium bifidum*
- **Store them properly** – away from extreme heat and humidity

Kidney Stone Prevention (3 slides)

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More people are suffering from Kidney Stones

- Kidney “stones” are minerals that crystalize in the kidneys/urinary tract
- Incidence of kidney stones is increasing dramatically – up 83% in men and 75% in women since 1994
- Two risk factors:
 - Obesity
 - Obesity doubles the risk of kidney stones
 - Intake of sugary drinks
 - Intake of **high sugar beverages increased risk by 44%**, while a daily wine, caffeinated coffee, or tea beverage *decreased* risk by 10-69%

Kidney Stones and Calcium

- Calcium supplementation is controversial, since 80-90% of kidney stones are formed from calcium (bound to oxalate or phosphorus)
- BUT – bones need calcium! And too *little* calcium causes oxalate levels to rise, which increases risk of stone formation
 - Oxalates are found in foods including spinach, rhubarb, beets, and nuts
- Get calcium **from food** or **with meals**
 - No connection between dietary calcium and stone formation
 - One study found that people getting the **least** dietary calcium were up to **27% more likely to form a kidney stone**
 - Comparing calcium in three divided doses with meals, versus one large calcium dose at bedtime, the calcium with meals prevented “supersaturation” and excessive calcium levels, and kept oxalate levels low

Reduce risk of kidney stone formation

- Get enough **water** (not sugary drinks)
 - Drinking less than 4 cups of fluids daily leads to up to an 86% increased risk of kidney stones
- Change your **diet**
 - High intake of processed meat, sugar drinks and desserts, and sodium increased risk of stone formation by up to 53%
- Consider more **vitamin K2**
 - A recent study found that kidney stone formation was 2-3 times more likely in women with low vitamin K2 levels
 - Look for vitamin K2 as menaquinone

**Overweight and Obesity Linked to Cancer Risk
(again)
(1 slide)**

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Extra pounds increase cancer risk

- According to the Centers for Disease Control (CDC)
 - Rates of obesity-related cancers increased by 7% from 2005-2014
 - Cancers *not* associated with overweight or obese decreased 13%
- Overall, cancers associated with overweight or obese make up 40% of the cancers diagnosed in the US
- Overweight or obesity is linked to 13 cancers: meningioma (brain cancer), multiple myeloma, cancer of the esophagus, and cancers of the thyroid, postmenopausal breast, gallbladder, stomach, liver, pancreas, kidney, ovaries, uterus, colon and rectum (colorectal)