New news on the dangers of Proton Pump Inhibitors (2 slide)
Proton Pump Inhibitors and Increased risk of Death

• Proton pump inhibitors are used to stop acid production in the stomach – Nexium is the fourth most prescribed drug in the US

• In the hospital setting, proton pump inhibitors are used to treat upper gastrointestinal bleeding

• Researchers looked at inpatient hospital use of proton pump inhibitors, and found that the increased risk of death associated with their use was greater than any risk from upper GI bleeding
  • In other words, they hurt more than they help!

• Increased risk of death comes because reducing stomach acid increases the risk of infections, especially from pneumonia and clostridium
Proton pump inhibitors linked to kidney disease

• **Kidney disease is a rare but dangerous side effect linked to proton pump inhibitors**

• **Study published in JAMA**

• **Researchers analyzed data from two different studies**
  • 10,482 patients followed for 14 years; those who took proton pump inhibitors had an 11% risk of kidney disease versus an 8% risk in the non-users
  • 248,751 patients followed for at least 6 years; those who took proton pump inhibitors had a 15% risk of kidney disease versus a 13% increase in non-users

• **Editors of JAMA note:** Many patients with heartburn and indigestion don’t need proton pump inhibitors. Behavior and lifestyle changes (getting more exercise and drinking less alcohol) may have the same effect as PPIs.
Public Enemy #1: Inflammation (2 slides)
To live longer – reduce inflammation

- Chronic inflammation (when the immune system is on ‘high alert’ and pumps out cells that inflame arteries and other tissues) is linked to cancer, heart disease, depression, obesity and almost every chronic disease.

- One 10 year study of more than 3,000 middle aged people found that those with high inflammation had one and a half times increased risk of heart disease and were 50% more likely to die of from chronic disease.

- Did you know? Inflammation is the cause of at least 80% of all sudden cardiac deaths (rapid and sudden loss of heart function).
Curcumin’s effects on inflammation

- Reduced swelling by 50% in an animal model of arthritis
- Reduced joint inflammation in acute arthritis by 75% and in chronic arthritis by 68% (animal model)
- In a separate study, reduced joint inflammation by 48% by day 3 in an animal model of arthritis
- In a study of post-surgical pain, curcumin reduced pain, inflammation and tenderness by 84% - while the control group receiving a prescription pain medicine saw no reduction in tenderness
- For patients being treated for inflammation in the eyes who received curcumin alone, or curcumin with standard drug treatment, 100% of those in the curcumin group reported improvements after 2 weeks of therapy versus only 86% in the curcumin/drug combination group
The Science of Getting Children to Eat Better (from the Wall Street Journal) (2 slides)
Forcing kids to eat healthy is not the way to go

- 18% of American children are obese, and many more are overweight
- How do parents – who don’t WANT to have unhealthy children – teach them to make healthy food choices?
- Science says **this doesn’t work**
  - Forcing a “clean plate” – a 2006 study of two groups of preschoolers fed corn soup regularly found that when reminded to “finish your soup” they started to hate it, and over 11 weeks ate less of it than the control group that had no reminders
  - Controlling eating too rigidly – a 2002 study found that that 7 year old girls whose mothers heavily restricted what they ate were more likely to binge. Left alone in a room with junk food, they ate more than those whose parents were less restrictive
How to raise healthy eaters

Research finds that the best way to get kids to make healthy choices are

• **Teach hunger management.** After age 3, kids have to learn what “feeling full” is like. If they say they don’t want more, let them stop. Pushing for “just one more bite” teaches them to ignore the signals of a full belly and force more food in.

• **Expose them to flavors.** Don’t start with a diet of sweet applesauce and rice. A European study found that infants fed a rotation of vegetable mush were more receptive to a new vegetable than those raised on baby rice.

• **Tiny tastes - often.** When kids were giving a pea-sized bite of a vegetable every day for 14 days, “yuck” turned to “yum.”

• **Make good choices yourself.** Kids whose parents model healthy eating are more likely to eat healthy themselves.
Excipients
(2 slides)
What are excipients and why are they in high quality products?

- Excipients are the “inactive” ingredients used in drugs, cosmetics, and dietary supplements
- Even though they don’t have a specific job to do for health or beauty, excipients are VERY important to the formula to
  - Enhance absorption (for example, curcumin is poorly absorbed and needs a boost)
  - Protect stability (B vitamins need to be protected from light or they will break down before you take them)
  - Add flavor to drink mixes and chewable tablets
True or False? Tablets and capsules are just full of cheap fillers and binders

- **False.** No manufacturer wants to add unnecessary ingredients to the product
- Some excipients are certainly more desirable than others
  - Turmeric essential oil instead of polysorbate 80
  - Stevia instead of high fructose corn sugar
- Excipients are used in the minimum amount necessary to guarantee a fully potent product that is consistent from batch to batch
How Sugar Feeds Cancer
(2 slides)
Sugar feeds Cancer

• Research has already shown that increased sugar consumption raises your risk of cancer

• New study (animal model) looks at what kinds of sugar are the biggest problem and how cancer cells react to it

• Mice that were genetically predisposed to breast cancer were fed either a starch heavy diet, or a diet high in sugar (sucrose and fructose)

• The researchers found that **fructose** specifically helped cancer cells spread further and faster
  • At age 6 months, 30% of the mice with a starch diet had breast tumors
  • At age 6 months, up to 58% of the mice with the extra fructose had breast tumors, and **the more sugar they were fed the bigger the tumors grew**
Why does fructose feed cancer?

• The researchers found that fructose – and not starch or glucose – increased activity of enzymes in the body that promote cancer cell spread

• Quote from the researcher: “While any sugar made the tumors grow faster, it seems that fructose is driving this inflammatory process and tumor formation.”

• This study looked at breast cancer, but other research has linked fructose to pancreatic tumors

• Fructose consumption in the US was about ½ a pound in 1970, but was up to more than 62 lbs a year by 1997