

**Featured Topic: Why curcumin is
better than NSAIDs for relieving pain
(5 slides)**

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First: what is curcumin?

- Start with the plant called turmeric
- Harvest, dry and grind up the rhizome (an underground stem) into a powder
- From the powder, extract the medicinal compounds – curcumin and turmeric essential oil with ar-turmerone
- Turmeric is the spice, curcumin is the medicine

What makes curcumin a great medicine?

- Stops inflammation
- Neutralizes free radicals
- Increases glutathione
- Normalizes immune cell function
- Reduces blood sugar levels
- Protects the liver
- Prevents cancer cell formation and spread
- *And more...*

Drugs have a single molecular target – curcumin has hundreds!

There is almost no condition that cannot be helped by curcumin!

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What are NSAIDs and why is curcumin better?

- NSAIDs are non-steroidal anti-inflammatory drugs
 - **Aspirin** (Bayer is one brand); **Ibuprofen** (Advil is one brand); **Naproxen** (Aleve); **Celecoxib** (Celebrex), and many more...
- NSAIDs block inflammation BUT ALSO increase blood clotting, damage the protective lining of the stomach and intestines, and raise blood pressure
 - People taking NSAIDs had an 80% increased risk of a blood clot – which can lead to a heart attack or stroke
 - Ibuprofen use doubles or triples the risk of heart attack or stroke
 - 25% of people taking high dose NSAIDs will develop an ulcer
 - Use of NSAIDs regularly for four or more years increased risk of hearing loss by 33%
 - **16,500 deaths annually from gastrointestinal complications of NSAIDs**
- Curcumin also blocks inflammation BUT DOES NOT cause any of these adverse effects

How do we know curcumin is better?

- Clinical trial: 139 people with arthritis pain in the knees
- Half received the NSAID drug diclofenac sodium, half received curcumin
- On a standard pain scale, both groups had the same amount of pain at the start of the study, and both groups had the same amount of pain reduction at the end of the study (day 28)
- HOWEVER, the group taking diclofenac also experienced
 - Indigestion
 - Vomiting
 - Constipation
 - Abdominal pain/heartburn
 - 28% of the people in the diclofenac group had to take additional heartburn medication (H2 blockers) because their stomach acidity was so bad
- No one in the curcumin group reported these problems!
- Conclusion: curcumin relieved pain as effectively as the NSAID drug but without the adverse effects

Curcumin as a supplement

- Curcumin is fat soluble
 - Dissolves in fat, not water
- In other words it absorbs best when paired with a fat
 - In India, turmeric is combined with ghee – clarified butter – or milk, as well as being added to foods such as curry
- Combining **curcumin** with **turmeric essential oil with ar-turmerone** is a safe and effective way to ensure absorption
- Dosage: up to 750 of enhanced absorption curcumin daily; in some cases may increase to 1500 mg daily

A Closer Look at: Aspartame and Diet Soda (2 slides)

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Aspartame

- One of the most commonly used artificial sweeteners
 - Brand names: NutraSweet and Equal
 - 200 times sweeter than sugar
- Aspartame is frequently linked to blurred vision, headaches, and neurological problems
- Used in thousands of processed foods, including diet soda
 - One study found that postmenopausal women who consumed two or more diet drinks a day were **30% more likely to experience a cardiovascular event** and **50% more likely to die from related cardiovascular disease** than women who never, or only rarely, consumed diet drinks.

Artificial sweeteners don't help with weight loss!

- Artificial sweeteners **act like sugar** and trigger insulin secretion, which can lead to weight GAIN not weight loss
 - Researcher found that over the course of about a decade, diet soda drinkers had a 70% greater increase in waist circumference compared with non-drinkers. AND participants who drank **two or more sodas** a day experienced a **500 percent greater increase in waist size.**
- Scientific review of 56 studies on artificial sweeteners found that there was **no evidence they helped obese people lose weight** and ‘long-term health effects are poorly understood’

Bladder Control for Dogs (1 slide)

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Canine incontinence

- If your dog is having ‘accidents’ check with your veterinarian to make sure it isn’t:
 - diabetes (dogs with diabetes may drink excessive amounts of water causing them to have to urinate more often)
 - urinary tract infection
 - bladder stones
- If overactive bladder is your dog’s problem, *Angelica archangelica* can help
- Angelica increases bladder capacity and reduces bladder spasms, making it easier for your dog to “hold it”
- Dosage: 100 mg of *Angelica archangelica* daily (for all size dogs)

Nutrient of the Day: Vitamin D (4 slides)

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Over age 50? Live in a northern area?

You might be low on Vitamin D

- Study in England of over 6000 adults, age 50 years or older, who had their blood levels of vitamin D measured
- Results
 - Almost **60% met the criteria for vitamin D deficiency**
- People living in southern England were **less likely** to be deficient than those in the north (except for people living in London, which is in southern England – urban areas were at increased risk of deficiency)
- For every degree of latitude going north, risk of vitamin D deficiency increased 11%
- Also associated with increased risk: age (the older the age, the greater the risk of deficiency) smoking, female gender, and obesity

More research on vitamin D deficiency

- Women with low vitamin D levels have double the risk of metabolic disease
- People with HIGH vitamin D had exercise capacity (efficiency of the heart and lungs) **3-4 times higher** than people with low vitamin D levels
- For frail older women, vitamin D supplementation plus exercise twice a week reduced risk of falls by 72%
- Women **deficient** in vitamin D were 43% more likely to have multiple sclerosis versus women with normal D levels
- Women with PMS treated with vitamin D had a 60% reduction in anxiety, a 46% reduction in irritability, and a 40% reduction in sadness
- People with low vitamin D levels have a 31% increased risk of colorectal cancer, while people with vitamin D above the minimum recommended levels have a **22% reduction** in colorectal cancer risk
- A study in Brazil found that **vitamin D deficiency was worse for the heart than obesity** – vitamin D deficiency was associated with a **12 times increased risk** of heart attack, and obesity with a 4 times increased risk

Which form is best? D3 versus D2

- D3 is the animal form of vitamin D (humans are animals!)
 - cholecalciferol
- D2 is the plant form of vitamin D
 - ergocalciferol
- Researchers compared supplemental vitamin D (D3 and D2) [600 IU] or placebo in 335 women during two consecutive winters
- Results
 - Placebo group saw a 25% decline in vitamin D levels
 - Vitamin D2 group had a 34% increase in vitamin D
 - Vitamin D3 group had a 75% increase in vitamin D
 - **Vitamin D3 was twice as effective** at increasing vitamin D levels

How much D?

- A recent analysis of almost 20,000 people that **found no significant adverse effects associated with vitamin D use**
- Most experts suggest about 5,000 IU daily of vitamin D3 (as cholecalciferol) for most people

Ashwaghandha for Infertility (1 slide)

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Ashwagandha Improves Sperm Count

- One hundred infertile men were treated with ashwagandha or a prescription drug for three months
- Results
 - Sperm count increased 12% in the ashwagandha group but stayed the same in the drug group
 - The number of 'normal' sperm increased more in the ashwagandha group (21%) than the drug group (13%)
- Adverse effects of the drug used in this study include: blurred vision, upset stomach, vomiting, chest pain and irregular heartbeat
- Adverse effects of ashwagandha: none
- In this study, participants received an extract from ashwagandha root