

# Cinnamon

## Alternative Nutrition Therapy

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# Alternative Therapy

- “Alternative therapy is the use of unconventional therapeutic systems used by clients in place of, or parallel to conventional biomedicine and it is typically administered by a trained practitioner”
- The Selection and consumption of specific foods to obtain vitamins, minerals and other substances necessary for optimal health.
- Focuses on link between food and health which relies on scientific background on how nutrients are absorbed and used in the body



# History

- Derived from the bark of a tropical Evergreen tree
- BCE: Greeks and Romans offered it to their gods
- Hebrew Bible: God commanded Moses to use it in the sacred anointing oil
- India: used for respiratory pain, upset stomach and muscle spasms
- China: used for “warming” qualities, respiratory problems, muscle aches, control blood sugar levels



# Usage in food

- Used all over the world to add a sweet/spicy kick to foods
- United States and Europe use for apple pie, coffee cake, muffins
- Spain adds to chocolate
- Middle East uses for stewing meat, toothpaste, tobacco



# Usage in treatment

- Used as prevention or treatment of diseases
- Diabetes-
  - Balances blood sugar
  - Protects the heart
  - Lowers risk for pre-diabetes
  - Prevents spikes in blood sugar after meals
- Helps fight cancer
- Helps brain after liver failure
- Wound healing



# Scientific Research

- Study 1: Links cinnamon to type 2 diabetes
  - Control ate no cinnamon
  - Group 1 ate cinnamon
  - Group 2 ate cinnamon extract
- Results:
  - Cinnamon intake, whole or extract, resulted in significantly lower fasting blood glucose levels



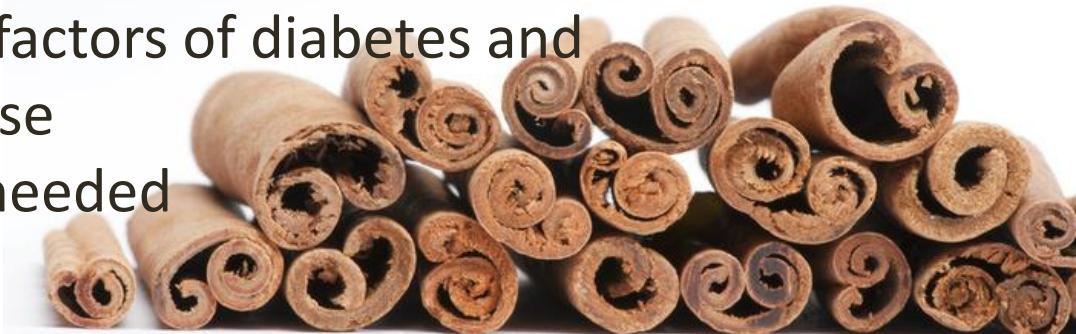
# Scientific Research

- Study 2: Determines effects of cinnamon on glycemic control on type 1 diabetes
  - Group 1 ate placebo
  - Group 2 ate 1g cinnamon
  - (90 days)
  - Gathered A1C, total daily insulin intake, adversities
- Results:
  - No effect in improving glycemic control for type 1



# Scientific Research

- Study 3: Determine effects of water soluble cinnamon extract on antioxidant status of people with impaired fasting blood glucose that are overweight and obese
  - Fasting blood glucose and BMI 25-45
  - Group 1 placebo
  - Group 2 250 mg aqueous cinnamon extract
  - 2x day, 12 weeks
  - Measured: plasma malondialdehyde (MDA), plasma antioxidant and erythrocyte Cu-Zn superoxide (Cu-Zn SOD)
- Results: reduce risk factors of diabetes and cardiovascular disease
  - More evidence needed



# Scientific Research

- Study 4: effects on systolic blood pressure and glucose and insulin related parameters in hypertensive rats
  - Group 1 sucrose + cinnamon
  - Group 2 non-sucrose diets + cinnamon
  - Measured body weight, systolic blood pressure, hematology, blood chemistry
  - 3-4 weeks
- Results: cinnamon may have roles in glucose metabolism and BP regulation
  - More evidence needed



# Scientific Research

- Study 5: Determine if other insulin related diseases were effected by diabetes
  - 15 women with polycystic ovarian syndrome
  - Group 1 ate placebo
  - Group 2 cinnamon supplement
  - 8 weeks
- Results: significant reductions in insulin resistant for group taking cinnamon
  - no change in the placebo group
  - participants needed to evaluate the effect of cinnamon extract on menstrual cyclicity.



# Bonus Benefits

- Lowers fasting blood glucose levels in type 2
  - Not type 1
- Used to help decrease the risk of diabetes and cardiovascular disease
- May have effect on blood pressure
- May have effect on other insulin related diseases
  - more research is needed



# Dosages

- No limit or regulations in food
- Safe and natural way of obtaining the spice
- Supplements : depend on
  - Age
  - Health
  - Weight
- Clinically: humans range 250-1000 mg/day



# Side Effects

- Not enough evidence to prove any side effects
- Believed to be unsafe in large quantities for long periods of time
- Believed to interact with antidiabetes drugs
  - Cinnamon lowers blood sugar + diabetes meds (lower blood sugar) = blood sugar too low
- May interact with hepatotoxic drugs
  - May contain coumarin which can worsen liver damage in people who are sensitive
- Advised to speak to a doctor if supplementing



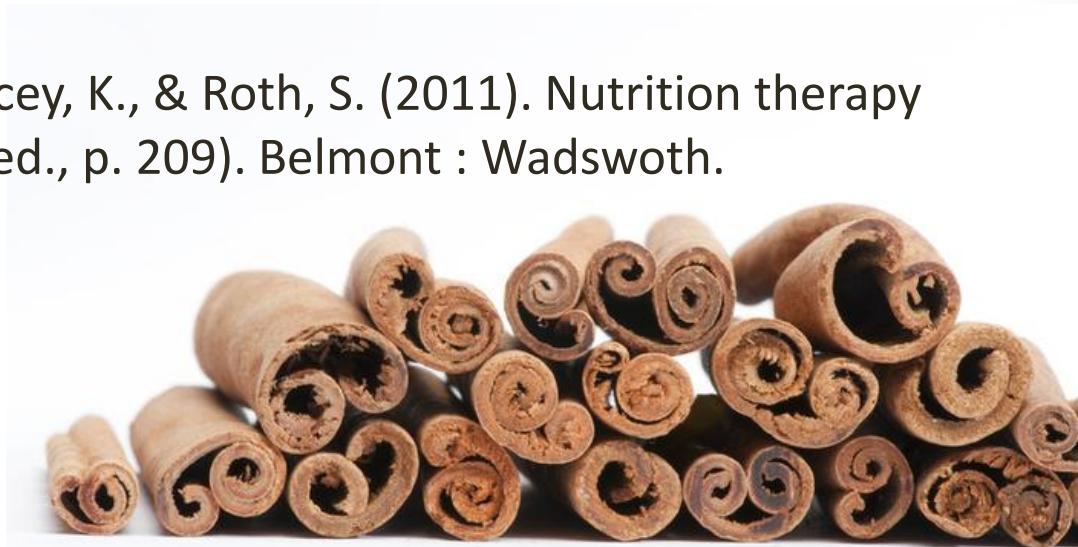
# Final Thoughts

- More than just an ingredient, can help one's health
- By understanding history, usage, research, dosages and side effects one can see why it is portrayed as a miracle spice
- Continuous research is need to understand how it works and other effects it has on other diseases



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