# NUTRITION FOR PROSTATE CANCER

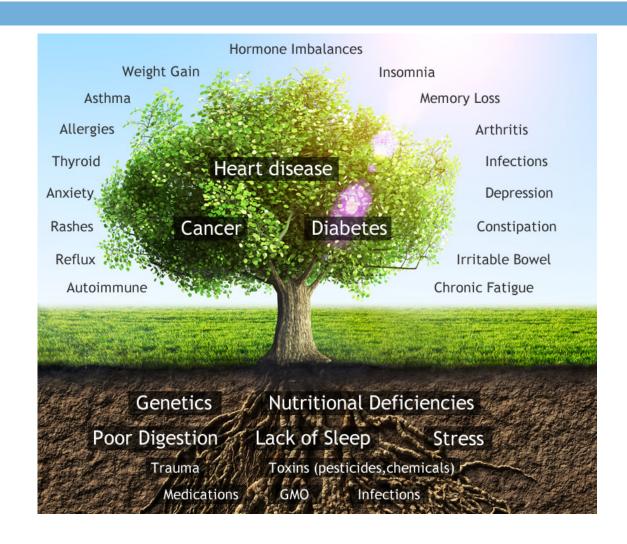
Tamra Thole, RD, LD
Elite Physical Therapy and Integrative Health

# My Story

- □ From DeWitt, Iowa
- BS in Dietetics from Iowa State University
   (but I was raised a Hawkeye fan)
- Dietetic Internship through Iowa State University
   (but I was raised a Hawkeye fan)
- Certified in Integrative and Functional Nutrition

# My Approach: Integrative Nutrition

□ I work with clients to address the root cause of their symptoms through diet and lifestyle.

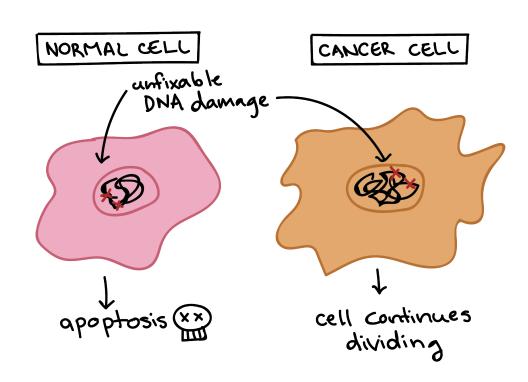


### Trivia

- 1. What is the name for the programmed death of an abnormal cell?
- 2. True genetic markers account for what percentage of all prostate cancers?
- □ 3. You should aim to consume ≥ how many servings of fruits and vegetables per day?
- 4. Which two vegetables have the biggest impact on prostate cancer?
- 5. What 3 oils are inflammatory and should be avoided?

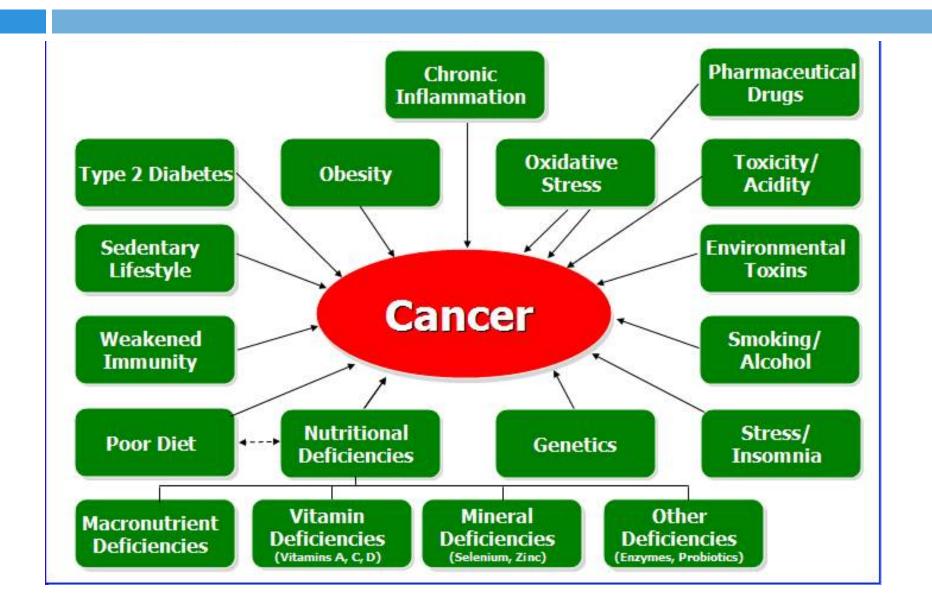
# What is prostate cancer?

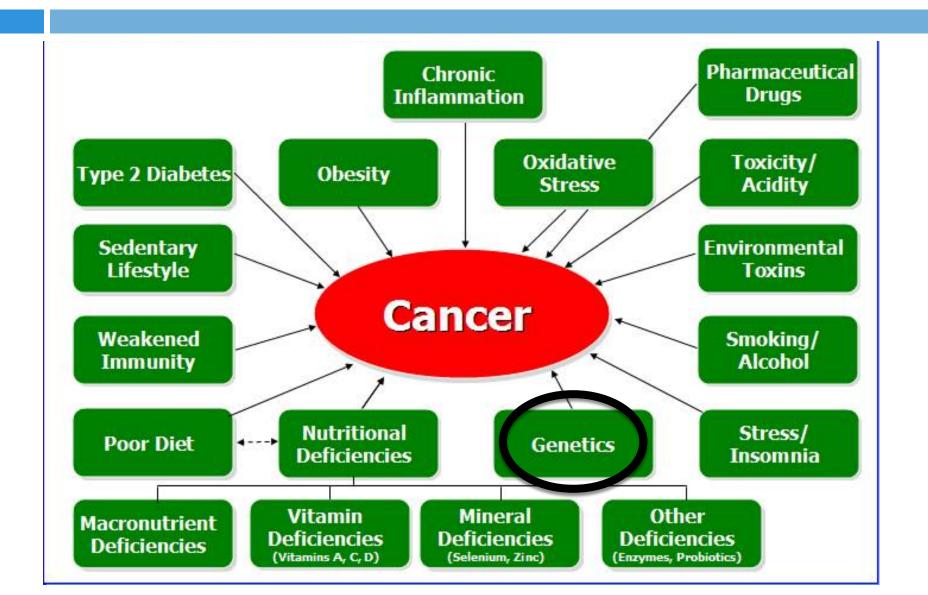
- Prostate cancer occurs when abnormal cells in the prostate begin to grow uncontrollably instead of dying.
- This can happen for a number of different reasons.

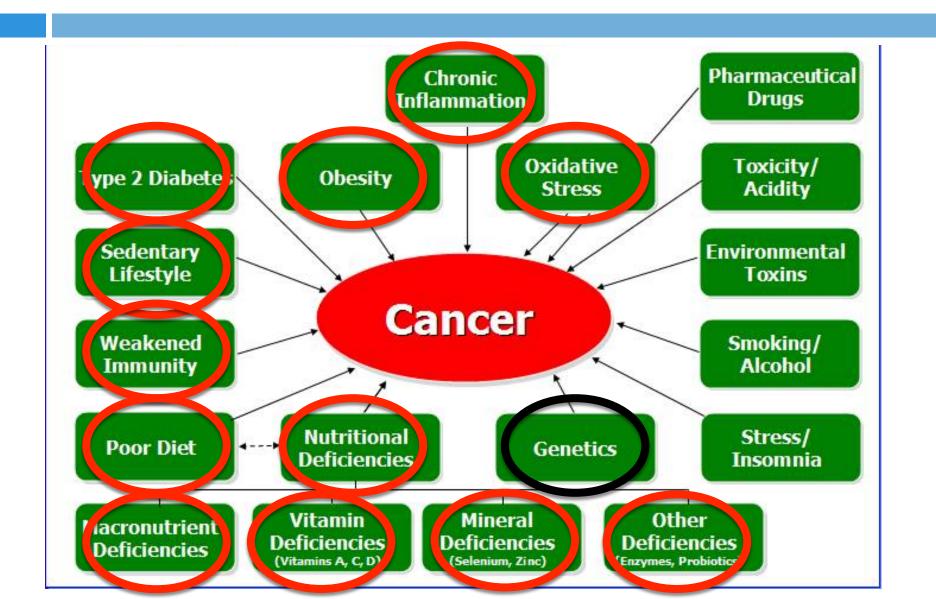


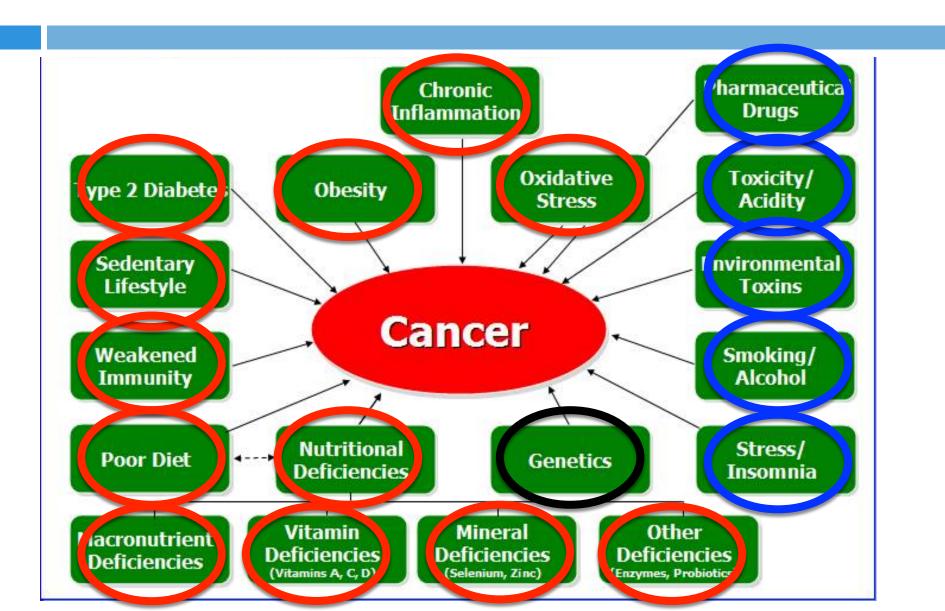
## Importance of Nutrition

- True genetic mutations account for only <u>5-10%</u> of all prostate cancers.
- We now understand cancer to not just be a cell that has gone bad, but a culmination of a "bad" cell AND the environment that facilitate the growth of a tumor.
- We can't just destroy the tumor, we need to <u>change</u> the environment that tumors grow.
- Diet and lifestyle are paramount in preventing, treating and recovering from prostate cancer.









# World Cancer Research Fund (WCRF) Recommendations for Prostate Cancer

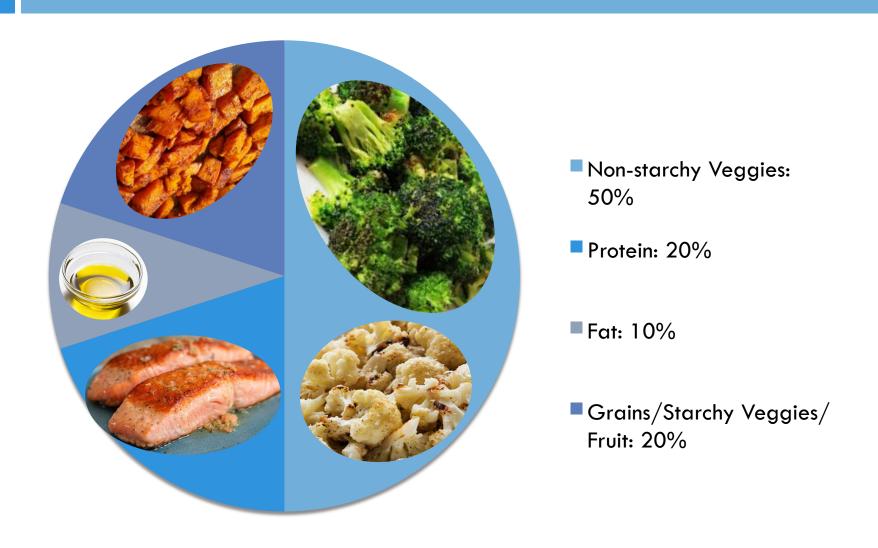
- BMI within normal range (18.5-24.9)
- Daily physical activity
  - $\square \ge 60$  minutes moderate or  $\ge 30$  minutes vigorous
- Avoid sugary drinks
- □ Consume ≥ 5 servings non-starchy vegetables and fruits daily
- $\square$  Consume  $\ge 25g$  unprocessed grains/legumes daily
- $\square$  Limit alcohol intake to  $\le 2$  drinks per day
- $\square$  Limit sodium intake to  $\le 2.4$ g per day

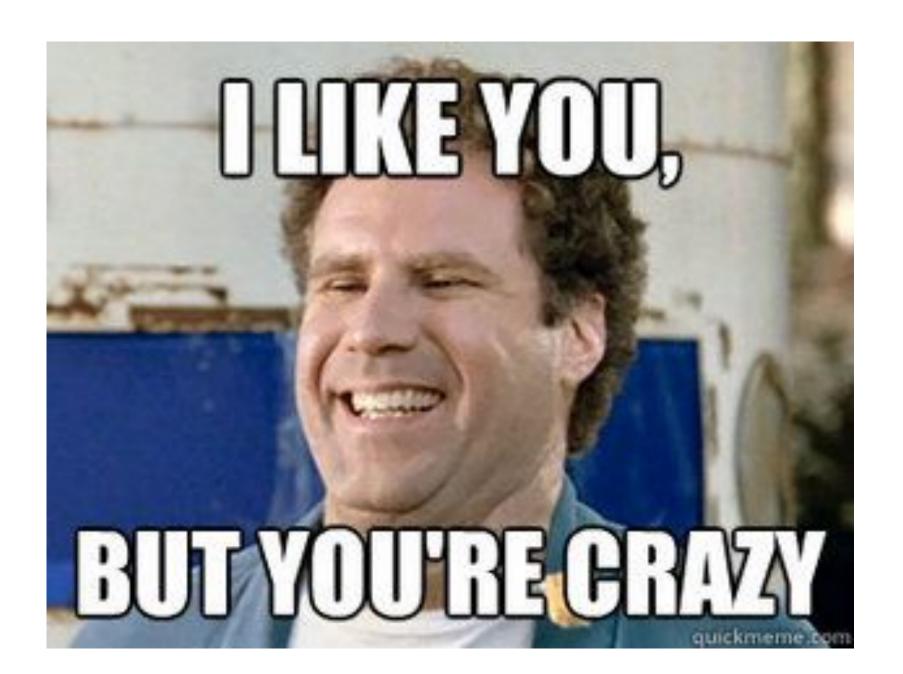
### Research

- Strongest inverse correlations with prostate cancer:
  - Adherence to WCRF recommendations
  - High vegetable intake shows a 49% lower risk of prostate cancer

- Strongest correlations with prostate cancer:
  - High red meat consumption
  - Consistent intake of more calories than your body can use

## The Perfect Plate





# Non-starchy Veggies

#### Why?

- Aim for 50% of your plate
- Micronutrients
  - Vitamins
  - Minerals
- □ Fiber
- Anti-inflammatory

#### Food sources:

Artichoke, asparagus, beets, Brussels sprouts, broccoli, cabbage, carrots, cauliflower, celery, eggplant, green beans, greens (collard, kale, mustard, turnip), jicama, kohlrabi, leeks, mushrooms, okra, onions, peas, peppers, radishes, salad greens, tomato

### **Best Choice**

- Studies show intake of broccoli and cauliflower have the biggest impact on prostate cancer risk:
  - Men who ate broccoli more than once per week had a 45% lower risk

Men who ate cauliflower more than once per week had

a 52% lower risk





### Protein

#### Why?

- Aim for 20% of your plate
- Quality, quality, quality!
  - Aim for pasture raised poultry/eggs, grass-fed beef and wild-caught seafood
- Necessary for glutathione synthesis
- Maintains lean body mass
- Helps manage weight
- Helps stabilize blood sugar

#### **Food Sources:**

 Beef, beans, chicken, eggs, Greek yogurt (plain), pork, turkey, tempeh, tofu



## Cooking Methods Matter

- Heterocyclic amines
  - Extremely potent carcinogen
  - Formed from charring meat of cooking at very high temperatures (frying)
- Use lower heat cooking methods
  - Roasting, baking, crockpot, etc.
- Marinating meats in polyphenolics (olive oil, garlic, spices) for 20 minutes can decrease formation of heterocyclic amines
- Heterocyclic amines are metabolized more quickly when eaten with cruciferous veggies (broccoli, cauliflower, Brussels sprouts, arugula, kale, cabbage, radishes, etc.)

## Fat

#### Why?

- Aim for 10% of your plate
- Cell integrity
- Anti-inflammatory
- Absorption of fatsoluble vitamins
- □ Fats to avoid: vegetable, canola, soybean → inflammatory!

#### Food sources:

Avocado (oil), olive
 (oil), nuts, seeds, butter
 (grass fed), ghee, nut
 butters

# Grains/Starchy Veggies/Fruit

#### Why?

- Fiber
- Antioxidants
- Micronutrients
  - Vitamins
  - Minerals

#### Food sources:

- □ Grains
  - Rice, quinoa, bread, pasta
- Starchy Veggies
  - Potatoes, sweet potatoes, squash, corn, peas, parsnip
- Fruit
  - Apples, bananas, berries, oranges, peaches, lemons, limes, kiwi, pears, etc.

# Beyond Food: Spices

- Garlic and curcumin (turmeric) activate apoptosis
  - Pair turmeric with black pepper to increase absorption







# Beyond Food: Fasting

- Studies show that intermittent or extended fasting may:
  - Prevent cancer/tumor development
  - Protect normal cells, but not cancer cells, against chemotherapy

### Trivia

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# Questions?

# Thank you!

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