

# MEAT

## and Alternatives

### ***Should I eat meat?***

**RECOMMENDATION:** If you eat red meat, have smaller, leaner portions as part of a balanced diet with lots of vegetables. Choose meat alternatives more often.

### **What's the evidence?**

#### **For Prostate Cancer *Prevention*?**

Eating too much red and processed meat might increase the risk of prostate cancer:

- Several large studies found that men who ate the most meat also had the highest prostate cancer rates.
  - However, not all studies showed this and a recent research review could not prove that eating red meat in itself raises prostate cancer risk.<sup>1</sup>
- Cooking with high temperatures or 'processing' seems to be important.
  - A new study found that men who ate the most hamburgers, grilled or processed red meat had the highest prostate cancer rates.<sup>2</sup>

#### **For Prostate Cancer *Treatment*?**

Eating too much red and processed meat might increase the progression or recurrence of prostate cancer:

- More research is needed to show if red meat in itself is healthy or not after a prostate cancer diagnosis - the few studies done had mixed results.
  - However, a new study found a slightly higher risk for advanced prostate cancer for patients who ate the most meat.<sup>3</sup>
  - Likewise, another study showed that patients who ate the most well-done grilled or barbequed meat also had higher risk for advanced prostate cancer.<sup>4</sup>
- Mixed study results might be from other foods typically lacking in men's diets and suggests that replacing meat with plant-based foods is helpful.
  - For example, in one study men on active surveillance who switched to meat-free diets with lots of added vegetables were able to postpone prostate cancer treatment.<sup>5</sup>

### **Meat and meat alternatives contain essential nutrients**

#### **Meat facts:**

- Meat and other animal foods (such as beef, poultry, pork, eggs and seafood) contain healthy protein and fats that are important parts of our diet, and are rich in B vitamins and minerals like iron and zinc.
  - Animal foods contain vitamin B12 – which is lacking in vegetarian diets.
- Typically 'red meat' refers to beef, lamb and pork, while 'white meat' refers to poultry like chicken and turkey.
- Processed meats include sausages, packaged luncheon or sandwich meat, hotdogs, bacon and ham.

#### **Is meat unhealthy?**

- Although it can be a healthy part of a balanced diet, eating too much meat and not enough vegetables increases the risk of heart disease and many types of cancer.
- Ongoing research suggests that men who eat the most cruciferous vegetables - like broccoli and its relatives - have the lowest prostate cancer risk.

Eating balanced diets and limiting how much red, processed or barbequed meat you eat might prevent prostate cancer or reduce progression or recurrence for men already diagnosed with prostate cancer.

# Poor health from eating too much meat is probably due to a combination of factors:

## 1. Meat dishes often have too much fat

- Choose leaner cuts of meat - trim off the visible fat. Remove skin and fat from poultry.
- Eight lower-fat beef cuts qualify for the Heart and Stroke Foundation's Health Check™ program:  
*Eye of round, Inside round, Sirloin tip, Top sirloin, Flank, Strip loin, Cross rib, Outside round*

## 2. People who eat lots of meat often don't eat enough vegetables, fruits and legumes

- Eat smaller portions of meat and fill your plate with lots of colourful vegetables rather than starchy foods like potatoes, pasta, rice or bread.
- Eat red meat less often - replace it with other healthy protein sources like skinless poultry, fish or meat alternatives like beans or tofu.

## 3. Meat is often cooked at high temperatures that can burn protein and form cancer causing products

- Don't overcook - roast instead of barbeque - and limit how much grilled meat (or poultry and fish) you eat.

## 4. Processed meats are often high in salt, fat and preservatives

- Avoid sandwich meats, bacon, ham, sausages and hotdogs, or eat products with lower fat and lower salt content.

1. Alexander DD, et al. A review and meta-analysis of prospective studies of red and processed meat intake and prostate cancer. *Nutrition Journal*. 2010; 9:50.
2. John EM, et al. Meat consumption, cooking practices, meat mutagens, and risk of prostate cancer. *Nutrition and Cancer*. 2011; 63(4):525-37.
3. Richman EL et al. Egg, red meat, and poultry intake and risk of lethal prostate cancer in the prostate-specific antigen-era: Incidence and survival. *Cancer Prevention Research*. 2011; 4(12):2110-21.
4. Punnen S, et al. Impact of meat consumption, preparation, and mutagens on aggressive prostate cancer. *PLoS One*. 2011; 6(11):e27711.
5. Frattaroli J, et al. (Dean Ornish) Clinical events in prostate cancer lifestyle trial: Results from two years of follow-up. *Urology*. 2008; 72(6):1319-23.

***This information is not meant to replace advice from your doctor or dietitian.***

# Most Canadians - especially men - eat more meat than they need

According to Canada's Food Guide, men need 3 servings of meat or meat alternatives each day.

- How much is a serving?

Meat or meat alternative	Serving size or amount
Cooked beans, peas, lentils or tofu	¾ cup (175mL)
Cooked fish, chicken, lean beef, pork or game meat	2½ oz (75 g) or ½ cup or the size of a deck of playing cards.
Cooked chicken pieces	½ of a chicken breast or a chicken leg with thigh (without skin)
Packaged luncheon meat	3 slices (75 g)
Eggs	2 medium whole eggs
Peanut butter or other nut butters	2 Tbsp (30mL)
Nuts or seeds	¼ cup (60mL)

<http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/choose-choix/meat-viande/serving-portion-eng.php>

## Meat alternatives

These are also excellent sources of protein and other nutrients with the advantage of also being high in fibre - which meat does not have.

- Experiment with different types of beans like navy, kidney and black beans - try chick peas or lentils too.
  - Use them in soups, casseroles, burritos, and chilli or pasta sauce.
  - Mash them and make dips like hummus.
- Add beans, nuts or seeds to a salad. Snack on roasted nuts and sunflower seeds.
- Try soybeans, edamame, tofu or 'fake meat' products made with soy or vegetable protein.



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