

## The ABC of Advanced Glycation End Products and Chronic Disease

Designated Cancer Center

As our bodies use the sugars that we consume for energy they generate waste chemicals known as Advanced Glycation End Products or <u>AGEs</u> for short.



Sugar





AGEs accumulate in the body as we grow older, which damages our tissues and organs and contributes to chronic diseases such as diabetes, Alzheimer's, cardiovascular disease, arthritis, cancer and others.

## The Western Way of Life has Increased the Levels of AGEs in our Bodies

Consuming foods that are high in sugar/fat or are highly processed substantially increases to the levels of AGEs in our bodies.

AGE's are naturally present in raw animal-derived foods but grilling, broiling, roasting, searing, and frying propagate and accelerate new AGE formation.

Alcohol and smoking also increases AGE accumulation as does a sedentary lifestyle and/or a lack of exercise.

The increased levels of AGEs brought about by a Western lifestyle coincides with the epidemic rise in chronic diseases.



## Even small changes in our daily lives can reduce AGE accumulation

By being aware of what AGEs are and how they contribute to chronic disease, we can make small changes to our daily lives which will reduce the amount of AGEs we accumulate.

- Avoid foods high in protein, sugar and fat as well as processed foods.
- Substitute unhealthy marinades with lemon juice, vinegar, etc. to inhibit AGE formation.
- Change how you cook your foods:
  - ✓ Cook foods at lower temperatures for longer (slow cookers are great for lowering AGEs in foods)
  - Cook over ceramic surfaces instead of metal, this will reduce AGE formation as you cook.
  - ✓ Use a food thermometer to make sure you do not overcook meats to keep AGEs to a minimum.
  - ✓ Skip the browning step when preparing dishes such as stews or roasts.
- Exercise regularly as this lowers the levels of AGEs in the bloodstream which helps prevent their accumulation.

A final thought: If our children eat 3 or 4 meals a week that were low in AGEs, over a lifetime this may have a significant effect on their overall health in later life and may delay or even prevent the onset of chronic disease