Advanced Glycation End Products and Chronic Disease

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

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\text{Sugar} + \text{Protein} = \text{AGEs}
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AGEs irreversibly accumulate in the body as we grow older, which damages our tissues and organs and contributes to chronic conditions such as diabetes, Alzheimer's, cardiovascular disease, arthritis and cancer.

The Western way of life has increased our AGE levels.

Consuming processed foods, particularly those high in sugar/fat, substantially increases AGE levels in our bodies.

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

Alcohol and smoking also increase 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.

Reducing AGE accumulation, one day at a time.

By knowing what AGEs are and how they contribute to chronic disease, we can make small changes to our daily lives to 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 or vinegar to inhibit AGE formation.
- Regular exercise lowers AGE levels in the bloodstream, helping prevent accumulation
- Change how you cook your foods:
  - Cook foods at lower temperatures for longer (slow cookers are great for lowering AGEs)
  - Cook over ceramic surfaces instead of metal to reduce AGE formation.
  - Use a food thermometer to ensure you don’t overcook meats to keep AGEs to a minimum.
  - Skip the “browning” step when preparing dishes such as stews or roasts.

Food for thought: If our children ate 3 or 4 meals a week that were low in AGEs, over a lifetime this may have a significant effect on their overall health as they grow older and may delay or even prevent the onset of chronic disease.