

## Steaming, Boiling, and Blanching:

Using water to cook food is preceded only by using fire. In fact, in the American southwest, steam pits used for cooking have been found dating back about 10,000 years or more. Steaming is thought to be one of the healthiest ways to cook your food because it does the least (besides consuming foods raw) to alter the intact nutritious molecules of what you are eating. But how does it work?

Water is made up of moving molecules, two hydrogen atoms and one oxygen atom. Slow movements mean solid ice, medium movements we recognize as liquid, and fast movements result in steam. By heating water to its boiling point, 212 degrees F, the kinetic thermal energy causes the water molecules to move around so quickly it exceeds the strength of the hydrogen bonds between the molecules which causes them to separate from the other molecules. When this gas escapes, rising into the air, it carries heat with it. Steaming is just transferring the kinetic energy from the hot water vapor into the molecules of the food. Just like in water the faster movement of molecules means hotter feeling foods.

The only difference between steaming something and boiling or blanching it is the food is in direct contact with the water before the molecular bonds are broken instead of afterwards. Transference of thermal energy occurs and BOOM your potatoes are readying for mashing. But food continues to cook even after being removed from the water which is not always what you want. Limiting how long the food stays in the water and controlling when the cooking process stops differentiates boiling from blanching. During blanching food is submerged briefly in boiling water before being removed and plunged into cool water, therefore halting the cooking process which preserves the texture of food.

There are many foods that are enhanced with blanching. Checkout this website with more information about using blanching to parboil your veggies for the grill and prepare your fruits for preservation in either canning or freezing:

<http://www.reluctantgourmet.com/how-to-blanch-foods/>