

## “KNOW YOUR COOKWARE”



**Iron** Cast iron can be pre-heated to temperatures that will brown meat and withstand oven temperatures well above what is considered safe for non-stick pans. The new cast iron can now be purchased pre-seasoned, ready-to-use. However, researchers who tested 20 foods proved that foods cooked in cast iron did indeed add significant amounts of iron to the food — the results of which were published in the July 1986 issue of the Journal of the American Dietetic Association. However, this may not be a bad thing for individuals who do not receive adequate iron levels from their diet. On average, in the United States, about 60-75 percent of the population does not meet their daily iron requirements. Toxicity for iron begins at 45 mg per day, 40 mg for children under 6. Iron, can be stored in the body so be cautious of consuming iron supplements and perhaps limit cooking with cast-iron pans for children under 3 to help prevent toxicity.

In the 1986 study, the dieticians measured the iron and moisture content of these items when raw and after cooking in an iron skillet and a non-iron (Corning Ware) dish, separately. The researchers measured the iron and moisture content of these items when raw, and after cooking in an iron skillet and a non-iron dish, separately. The researchers also compared iron absorption when using a new iron skillet versus an older one. Food cooked for longer periods of time absorbed more iron than food that was heated more quickly. They also found foods prepared with a newer iron skillet absorbed more iron than those cooked in an older one. Foods that were stirred more frequently absorbed a greater amount of iron as well, probably because of the surface abrasion caused by stirring. Hamburger, corn tortillas, cornbread, and liver with onions didn't absorb as much iron. This was probably due to the shorter cooking times, and the fact that they were either turned once or not at all, resulting in less infiltration of iron. However, high acid foods such as vinegars and tomatoes are at higher risk for iron leaching from the pan due to their acidic nature.

**Corning Ware** Corning Ware is a series of glass products can be used to prepare food, serve food, and bake foods. It has been very popular for many decades due to its versatility, durability and convenience. Before using Corning Ware, it is recommended that you check the bottom of the product for information on appropriate use (convection, microwave, conventional oven, etc.) It is important to pre-heat your oven when using glass cook ware because sudden temperature changes can cause shattering. Also, when the product is finished cooking, it is important to allow the glass to cool before placing it in the refrigerator to ensure no breakage occurs. Besides the potential shattering that could occur if precautions are not taken, there are no adverse side effects on health when cooking with Corning Ware.



**Stainless Steel** “Nutritious, Delicious Cooking Seminar” presenter, Paula Youmell’s favorite cookware has long been Wearever stainless steel. Most chefs agree that stainless steel browns foods better than non-stick surfaces. In their 2001 review of sauté pans, *Cooks Illustrated*, an independent publication, chose a stainless steel pan over otherwise identical non-stick models. They also recommended stainless steel pan roasters over non-stick. One of the cheapest sets of good stainless steel, recommended by *Good Housekeeping*, is Wearever Soft Luxury pots and pans that will please the average cook. For instance, the skillet has a non-stick interior and is easy to clean.

**Copper** Besides its attractive appearance, copper yields many benefits while cooking. Copper is an excellent conductor of heat and can be useful to use when cooking foods that require a controlled heating temperature. Also, they are typically lined with steel or tin so there rarely is risk of copper toxicity from the products. However, if your copper pots are not lined with steel or tin, the risk of copper toxicity is still very low. At this point there is no defined upper limit to toxicity levels known to create adverse health effects

**Lead** Children should be especially careful of ceramic ware containing lead. High-acid containing foods such as oranges, tomatoes, or foods with vinegar will cause more lead to be leached from ceramic ware than non-acidic foods like milk. More lead will leach into hot liquids like coffee, tea, and soups than into cold beverages. Any dish ware that has a dusty or chalky gray residue on the glaze after it has been washed should not be used. Also, any ceramic ware bought abroad or categorized as a craft, antique, or collectable may not meet FDA specifications, and should not be used to hold food. Test kits can detect gross levels of lead in ceramic ware, but may not detect lower levels that are also potentially dangerous.

**Teflon** Current research shows that Teflon coated pans flake off at high cooking temperatures and can be dangerous to health. Teflon can give off up to fifteen toxic particles and gases including trifluoroacetic acid and phosgene. Both of these chemicals are very toxic to birds as well as humans. In humans, consumption of these chemicals can produce symptoms such as backache, headache, chills and the fever. Side effects of “Teflon Flu” are reversible when Teflon products are no longer in use. Be sure to only cook low-temperature foods such as fried eggs or sauces in Teflon pans to prevent reaching the heat limit that will cause Teflon breakage into food.

**Aluminum** Early studies indicated that Alzheimer’s patients have unusually high levels of aluminum in the brain, proposing a possible connection between the elevated aluminum and the disease. However, current studies have shown that the increased aluminum levels in these patients were attributed to a preservative that was added to the sample. Although up to 52 percent of all cookware is made with aluminum, researchers claim that the amount of aluminum leached into food is insignificant especially when compared to everyday sources of aluminum. Given the ever-changing research, it may be wise to use aluminum ware only when clad in stainless steel.

## **Before You Invest:**

Today, picking the vessels in which to cook and serve the food you serve your family, guests and yourself is just as important as picking the freshest and the choicest food the budget can afford. Before you invest in a new piece of cooking ware read the label, do some research on the Internet, in the library, or ask your home extension agent for advice before spending your money.

