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## Building A Greener Kitchen

### Part 1: Containers, Pots, and Pans

The kitchen is one of the most important places in a household. It is where food is stored and cooked. In other words, items in a kitchen can have a direct impact on human health and an indirect effect on the planet. The following article will cover storage containers and cookware that are recommended to build a kitchen that has benefits both for the health of the consumer and the environment.

#### **1. Food Storage: Plastic or Alternatives?**

The most popular types of containers are made of plastic. Plastic containers are cheap, versatile, and lighter than glass alternatives. However, plastic is known to have devastating impacts on the environment as it is not biodegradable and contributes to the quick depletion of non-renewable petroleum, its precursor (North & Halden, 2014). Additionally, plastic is harmful to human health. When heated in the microwave or used to store acidic foods, plastic containers can release small particles of bisphenol A (BPA) and bis(2-ethylhexyl) phthalate (DEHP) that can migrate into food and eventually be ingested by the consumer (Mackevica et al., 2016). The ingestion of such particles can cause numerous health problems. Identified health problems include the disruption of the endocrine system, an increased risk of heart disease, reduced fertility, and many more (Monneret, 2017).

#### ***What is the solution?***

The first step in the right direction involves picking other types of containers, such as glass containers (Claudio, 2012). First, glass containers can be heated at high temperatures without having any harmful particles migrate into the food. It would be healthier to heat the food on a stove top in a pan, instead of heating/eating food while it is in a plastic container. Second, acidic foods do not cause any leeching with glass

containers.

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Third, glass containers are safe for the environment as they can be reused multiple times without getting damaged, and when damaged due to breaking, for example, glass can be recycled almost endlessly. Fourth, glass containers do not absorb food odours and are easy to clean. Finally, glass is versatile and can create an aesthetically pleasing look that can suit any kitchen.

## **2. Cooking: The Dangers of Non-Stick Cookware & Healthy Alternatives**

Non-stick pans have grown in popularity, but its advantages come with consequences that can be dangerous. Non-stick cookware is commonly coated with “forever chemicals”, or compounds such as polytetrafluoroethylene (PTFE), perfluorooctanoic acid (PFOA), and other groups of fluorochemicals labelled as GenX (Sajid & Ilyas, 2017). These compounds are toxic to human health and have been labeled as environmental pollutants. When non-stick cookware is heated, particles of the coating can combine with food. Regular ingestion of these particles can produce carcinogenic effects, amongst other known complications. According to one study, PFOA has been found in human blood and breast milk due to accumulation and incomplete elimination of the compound over the years (Mogensen et al., 2018). Similarly, in the environment, these pollutants can accumulate in terrestrial and aquatic organisms, thereby affecting their development (Jantzen et al., 2017). Some of these organisms are also part of the human food chain; therefore, multiplying the risks of toxic effects.

### ***What is the solution?***

The safest option will consist of cookware that will not release chemicals when heated. Glass cookware is a great contender for the reasons listed previously. Other non-toxic and eco-friendly options include ceramic, cast iron, and stainless-steel cookware. When shopping for these, the following points need to be considered:

- Avoid cooking acidic foods in cast iron and stainless-steel cookware as this can cause chemical leeching (Kuligowski & Halperin, 1992).
- Choose glass or glass-coated cast iron for acidic foods.
- When looking for stainless steel cookware, pay attention to the label. Choose low-nickel pots and pans.

Building a greener kitchen also touches on the topic of cleaning and maintenance. Thus, the next part of this article will cover the best cleaning products and tips to use to sustain a kitchen that is safe and green.



## References

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