

Safety Share: Glass Cookware Safety



Under the wrong conditions, glass cookware can crack, break or shatter.

Glass cookware is tempered (heat resistant). However, there are many steps to follow to ensure safe use of glass cookware.

Glass Cookware Steps:

If the steps are not followed, glass cookware can shatter unexpectedly. When the glass cookware shatters, (it looks as if it has exploded) with a bang and glass shooting several feet in all directions.

- If glass bakeware is chipped, cracked, or scratched, it's time for it to be retired from service. It is more likely to shatter!
- Don't take glass bakeware directly from the freezer to the oven, or vice versa.
- Allow the oven to fully preheat before putting glassware inside.
- Don't add liquid to glassware that is already hot.
- Cover the bottom of glass bakeware with liquid before cooking meat or vegetables.
- Don't put hot glassware on the stove, on cold or wet surfaces, on the counter, or in the sink. Instead, place it on a dry cloth pot holder or towel to completely cool first.
- Follow the manufacturer's recommendations by not using glass cookware on the stovetop, under the broiler, or in a toaster oven.

Why Glass Cookware Shatters:

A difference in thermal tension can cause glass to shatter. Thermal fatigue can also be a factor in older cookware.

History of Glass Cookware:

Pyrex was made from borosilicate glass. But now, as a cost savings measure, it's made from heat-strengthened soda lime glass. Soda lime glass experiences 3 times more thermal expansion than borosilicate glass, meaning the potential for shattering is 3 times higher. While thermal expansion may be greater with soda lime glass, its mechanical strength when heat treated is more than double that of borosilicate glass.

Both major glass bakeware manufacturers -- Pyrex and Anchor Hocking -- say decades ago they switched to soda lime glass that's more environmentally friendly to produce.

World Kitchen, maker of Pyrex, said, "Consumers are far more likely to be injured by dropped glass bakeware ..." and that the newer glass is "more resistant to impact breakage." Anchor Hocking said "the vast majority of injuries result from failure to use the product according to instructions."

Pyrex indicates that the safety of its products is demonstrated by the fact that there's never been a Pyrex recall.

Positive of Glass Cookware-

Glass is the most inert of all cookware, meaning that it doesn't leach metals or other ingredients into the food.

References

- 1) http://food.thefuntimesguide.com/2010/09/exploding_pyrex.php
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- 3) Glass Cookware Safety | eHow.com http://www.ehow.com/way_5158911_glass-cookware-safety.html#ixzz1y95MOXof