# Cross Contamination 

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# BOUNTIFULLY HEALTHY <br> <br> WHAT IS CROSS <br> <br> WHAT IS CROSS CONTAMINATION? 

 CONTAMINATION?}

Cross contamination is when Gluten free food comes into direct or indirect contact with gluten containing foods or utensils in the preparation or handling of food. This would then involve ingesting the gluten that has cross contaminated your food.

HOW MUCH GLUTEN IS ENOUGH TO CAUSE INTESTINAL DAMAGE?
Research and studies have shown that in order for something to be termed "gluten free" it should not contain more than 20ppm of gluten (ppm stands for parts per million).

Further studies [1] have shown that anything from 10 mg to 50 mg of gluten on a daily basis is enough to cause intestinal damage.

To put that in perspective: the tip of a ball point pen of flour would contain about $10 \mathrm{mg} / \mathrm{kg}$.

Since the average person doesn't have the tools to measure how much gluten is in each product they are consuming, the question is: What would this be the equivalent to?

The answer is :10mg is the amount of gluten in a 350th piece of a slice of bread [2] which is really basically crumbs!

So when a person with Celiac disease says "Even a crumb will affect me" they are not exaggerating!

## HOW CAN I AVOID IT?

While it would be impossible to list every source where possible cross contamination could occur, the following is a list that offers some direction for home use.

- Sharing Utensils and preparation surfaces while preparing between gluten and non-gluten foods. Such as using the same knife to slice breads or spread butter.
- wooden Bread boards: It is better for a person with CD to have their own breadboard as shown above, in the tiniest amount is enough to cause intestinal damage, and gluten can hide in the cracks of bread boards.
- Store gluten free food in their own containers whether in the fridge or in the pantry.
- Studies have shown that consuming fries that were cooked in a fryer in which gluten food was prepared has been shown to contain high amounts of gluten.[3]
- Prepare and cook gluten-free food separately. This will greatly reduce the risk of cross contamination.
- If you own a dishwasher, it is better to wash as much as will allow in the dishwasher. Otherwise, use hot soapy water and wash thoroughly as well as rinse.


## HOW CAN I AVOID IT?

A study was done in which gluten bread and then gluten free bread was toasted in the same toaster in a busy hospital cafeteria at 20 minute intervals without being cleaned between the different types of bread.

The study result was that toasting in a shared toaster was not associated with gluten transfer (which needs to be greater than 20 ppm ) the 3 samples with detectable gluten had levels ranging only from 5.1 ppm to 8.3 ppm gluten. [4]

This study makes it appear that it seems unlikely that sharing a toaster can cause cross contamination. However, it is possible that more in depth studies need to be done as indicated by some good points that the gluten-free watchdog mentioned on her post.[5] Each person should make their own call.

If it gives you peace of mind over being anxious about it, then it may be a good idea to have your own toaster.

Please note that I am not advocating NOT having your own toaster, merely pointing out that the choice at the end of the day lies with you and what YOU are comfortable with. I always tell my clients that peace of mind is worth more!

## WHAT ARE THE TAKEAWAYS?

Research and studies regarding Celiac disease and things like cross contamination are ongoing. However, there is a lot that remains unclear for the average person.

This also explains why it would seem some people are hyper vigilant when it comes to Celiac Disease. What is good to keep in mind that Celiac Disease is an autoimmune disease. It does not take much gluten for the body to attack itself and in doing so, to damage the villi of the intestinal walls.

The amount of gluten that causes damage also varies from person to person and some react to the slightest amount while others seem not to show any visible symptoms (this however, does not mean no damage has taken place).

It is also good to keep in mind that it may take some time to notice that you are getting repeatedly cross contaminated. You could start to feel a bit ill and notice that you feel a bit off which gradually gets worse over time. I once made the mistake of thinking it would be fine to get pizza every now and then. I learned my lesson the hard way. Eventally I ended up with severe nutrient deficiencies, weight loss and malnutrition (basically leaky gut all over again!) Please be careful. Taking chances is just not worth it!

