



# PROCESSED FOODS AND FOOD PROCESSING



## Summary

A processed food is anything we eat that we've changed on purpose in some way from its natural state. We call the process that causes the change 'food processing', and we've been doing it for thousands – even millions – of years.

Simple processing includes things like bagging, washing and cutting up food. This doesn't change it too much. Heavier processing includes cooking, adding preservatives, sugars or salt, combining foods, or changing their textures. It is more likely to change the properties of a food and also how good it is for us. When people talk about "processed foods" they usually mean heavily processed ones like snacks and convenience foods.

Washing, cooking or chilling food to kill harmful bacteria are examples of processing which can make food safer. Adding lots of sugars, fats, or salt are examples of processing which can make it less healthy. We need to balance the helpful and harmful.

## There are different degrees of food processing

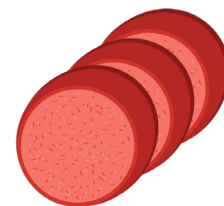
We can think of processed foods as falling on a scale depending on their level of processing:

- **Simple processing** keeps most of a food's natural physical, chemical, and nutritional properties. We do it when we wash, clean, bag and cut up fresh food.

- **Minimal to moderate processing** changes more food properties. It includes blanching\*, cooking, freezing, drying, juicing and extracting, crushing, mincing, pickling and canning; it's also processes like pasteurising, refining and milling. It can involve adding ingredients like fats, oils, sugars and sweeteners, salt, flavours, and preservatives; or using processes like baking to combine foods and change their structure.

- **Heavy processing** involves even more ingredients (including additives: emulsifiers, colours, and stabilisers) and more complex chemical or physical processes (like adding hydrogen to saturate unsaturated fats, water to plump up bacon, or carbon dioxide to make fizzy drinks). This further changes the structure, taste, time it will last, texture, and nutritional value of foods. It creates the products most people think of as "processed foods": crackers, snacks, cakes, biscuits, deli meats (like salami, ham and bacon), cook-in sauces, breakfast cereals, soft drinks ... all the way up to convenience foods and ready-to-eat meals.

\*Briefly putting food in boiling water or steam to stop the enzymes that break it down from working.



## Why do we process foods?

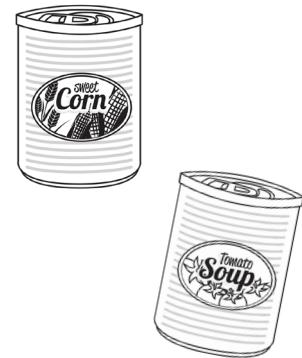
To help ourselves. Simple or minimal processing makes foods cleaner and easier to eat and transport. We also process foods to make them suitable or safe to eat (e.g. milling grain, boiling raw potatoes, pressing oil, pasteurising milk, or cooking meat). Some processes (like blanching, canning and freezing) preserve foods so we can enjoy them safely at our convenience and out of season. But we also process foods to make them more appealing – whether by adding sugar, fats and salt for taste, removing some fats, swapping artificial sweeteners for sugars, removing fibrous husks, adding or removing caffeine, adding vitamins or minerals, altering textures, or using preservatives to make foods last longer.

## Sometimes processed foods may not be the best choice

Some processed foods encourage us to eat more salt, sugar and fat (especially saturated) than we need, and various substances about which we know very little. Our understanding of what's in a food usually decreases as processing increases, so it's harder to make healthy food choices. Processing can also alter concentrations of key nutrients.

## Sometimes processed foods are helpful

However, many processed foods have a place in our lives – and not just because they keep foods safe from unwanted bacteria. If someone is busy, being able to use frozen, pre-cut, or washed fruits and vegetables for a meal could make the difference between eating them or deciding not to; canned foods like cooked kidney beans or tuna provide nutritious foods we might not have time to prepare safely or at all; and affordable tinned foods like tomatoes, fruit salad and pineapple can add useful amounts of vitamin C to our diet.



## USEFUL LINKS

See the Life Education factsheets on Is fresh always best?, and individual vitamins, especially A, B, C and E as these also cover how storage and processing affect them and explain how carotenes and vit A relate.

The sheets on Tricky ingredients, Was it something I ate?, Sodium and Sugars also contain relevant information.



## REFERENCES

Michigan State University, 26 November 2014. "What is a Processed Food?": author Ashley Parrish. Retrieved from: [http://msue.anr.msu.edu/news/what\\_is\\_a\\_processed\\_food](http://msue.anr.msu.edu/news/what_is_a_processed_food) 26 September 2017.  
National Health Service, 1 May 2016. "Eating Processed Foods?" Retrieved from: <http://www.nhs.uk/Livewell/Goodfood/Pages/what-are-processed-foods.aspx> 26 September 2017.