

# IMPACT OF FOOD REFORMULATION ON FOOD CHOICES, NUTRIENT INTAKES AND HEALTH STATUS

## A SYSTEMATIC REVIEW

Considering the high levels of processed food intake in Europe, **reformulating food products to improve their nutritional properties** can help create healthier food environments and reduce the impacts of diet-related health conditions, such as obesity.

This review investigated **the impact of food reformulation on food choices, nutrient intake and health status**.

### Behaviour and choices

The review found that people **usually accept, buy and consume reformulated products**, resulting in an overall **improvement in the nutritional composition of food purchases**.

Reformulation towards **less sugar or more fibre** tended to be more often noticed and less accepted by consumers, while **salt-reduction** has higher acceptance.

### Nutrient intake

Overall, food reformulation tends to lead to improved nutritional intakes. Analysing studies from Europe and the US, the review found that daily population-wide **salt intake after reformulation was 0.57g lower than before**.

Product reformulation to **reduce trans-fatty acid (TFA) content also results in reduced TFA intake**. An overall decrease in intake between 38% - 85% were reported in North America, Costa Rica and the United Kingdom.

The review could not identify studies assessing the impacts of reformulation for other nutrients, like **sugar**, or for **total energy**.

### Health status

The review found that a ban on TFAs in processed and restaurant foods has led to a **reduced mortality from cardiovascular disease** in Austria, Denmark, Costa Rica and the US. Mortality was reduced **by 4.3% - 6.2%**.

One British study on sodium reduction in foods **showed a positive effect on blood pressure**.

Only three studies investigated the effect of reformulation on children and adolescents, finding **similar results as for adults**.

### Effective reformulation strategies should:

- Be accepted by consumers
- Not lead to compensation of reduced nutrients
- Include a wide variety of products
- Cover food categories that are major sources of targeted nutrients
- Not lead to additional products being placed on the market

### Other findings include:

- Mandatory standards are more effective than voluntary actions
- Out-of-home foods are promising targets for reformulation policies
- Multi-component strategies that include food reformulation are more promising to improve population diets than reformulation alone





Science and Technology in  
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# Impact of food reformulation on food choices, nutrient intake and health

## Salt and trans-fatty acid reformulation



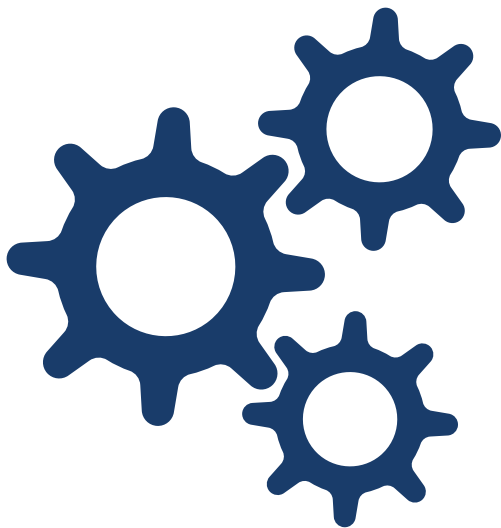
accepted by  
consumers



improved daily nutrient  
intake



positive health  
changes



FOOD REFORMULATION IS MOST  
EFFECTIVE AS PART OF A  
MULTI-COMPONENT STRATEGY  
AND INCLUDES MANDATORY STANDARDS

## Future research should focus on:

sugar and  
fibre reformulation



consumer acceptance

whole diets rather  
than single nutrients



children

