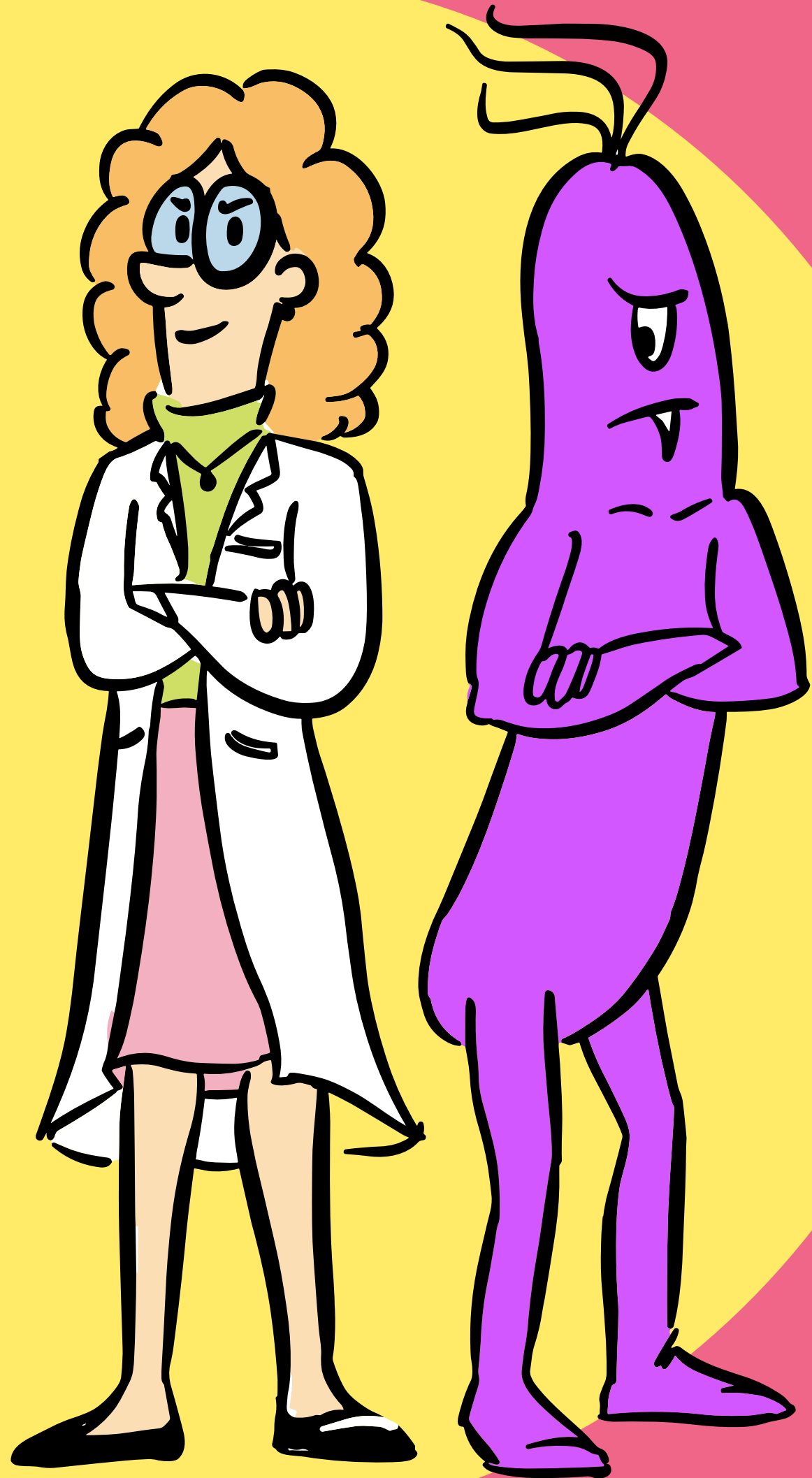


RAW FOOD

WHAT DOES
SCIENCE SAY?

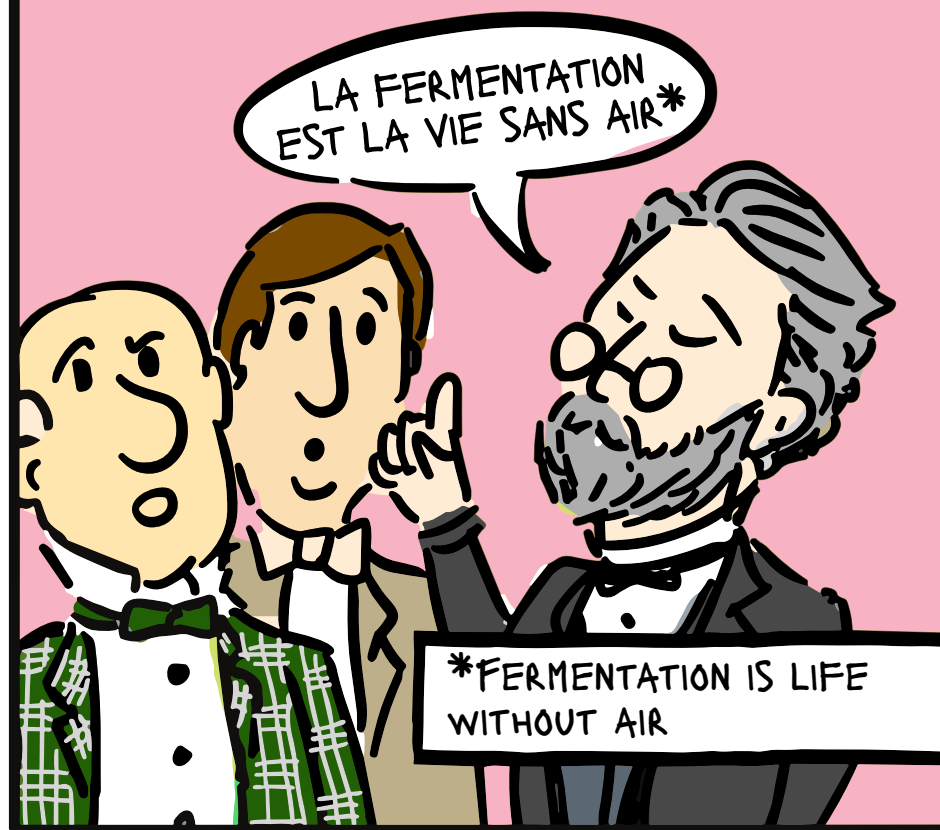
THE BfR SCIENCE COMIC



THE FRENCH CHEMIST LOUIS PASTEUR INVESTIGATED THE FERMENTATION PROCESS IN 1861 AND DISCOVERED THAT...

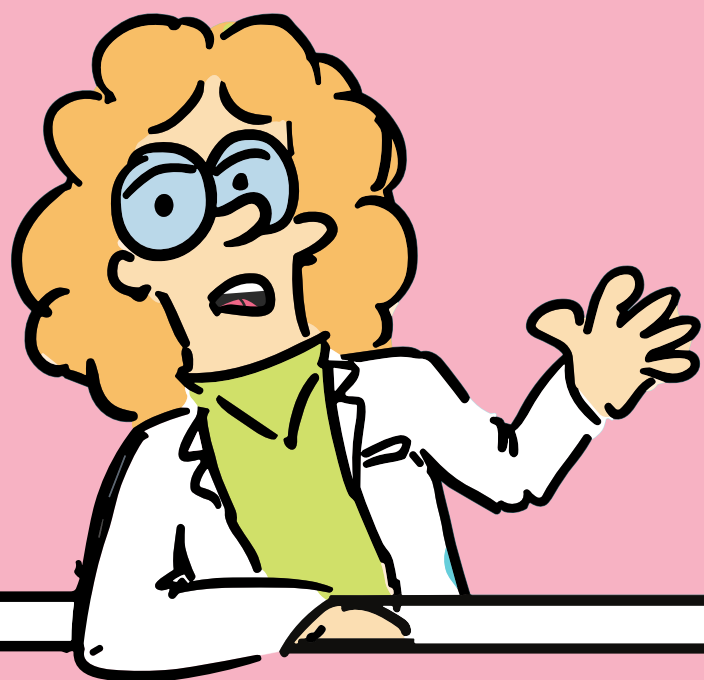


... MICROORGANISMS CAUSE FOOD SPOILAGE AND ALSO TRIGGER INFECTIONS AND DISEASES.



BASED ON PASTEUR'S GERM THEORY, METHODS WERE DEVELOPED TO REDUCE DISEASE-CAUSING MICROORGANISMS IN FOOD. ONE WAS NAMED AFTER HIM;

PASTEURISATION*



MANY PEOPLE CONSIDER RAW FOOD TO BE HEALTHY!

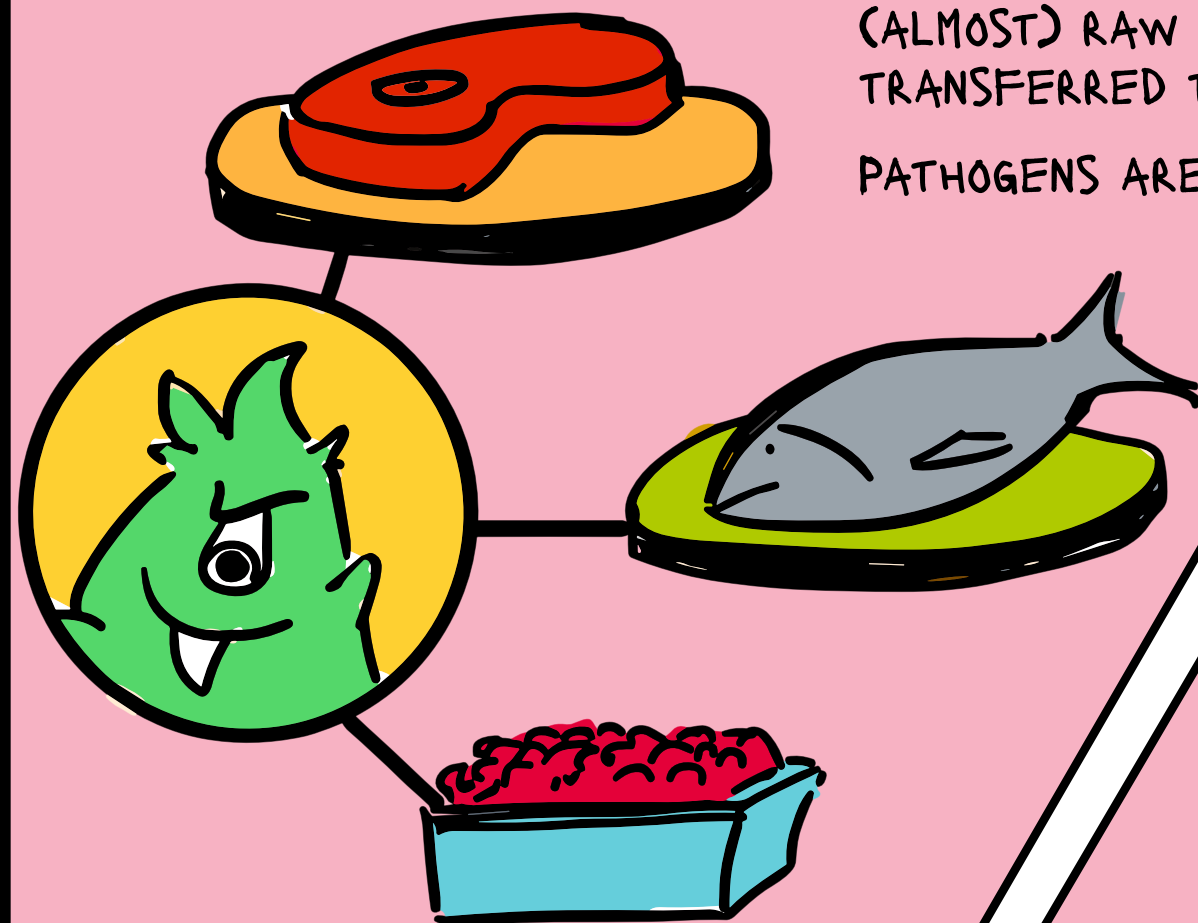
BUT CONSUMING RAW ANIMAL-BASED FOOD AND EVEN FRUIT AND VEGETABLES CAN LEAD TO INFECTIONS.

THE CAUSE; PATHOGENS SUCH AS SALMONELLA, LISTERIA, CAMPYLOBACTER AND VIRUSES

IS THAT REALLY TRUE?

WHAT DOES SCIENCE SAY?

FOOD-BORNE INFECTIONS CAN OCCUR IF THESE TYPES OF FOOD ARE EATEN (ALMOST) RAW +++ NOT COOKED SUFFICIENTLY +++ OR IF PATHOGENS ARE TRANSFERRED TO OTHER READY-TO-EAT PRODUCTS DURING PREPARATION +++
PATHOGENS ARE ONLY KILLED WHEN FOOD IS HEATED SUFFICIENTLY.



IN GERMANY, ABOUT 100,000 CASES OF FOOD-BORNE INFECTIONS ARE REPORTED EACH YEAR.



THE NUMBER OF UNREPORTED CASES IS PROBABLY MUCH HIGHER.

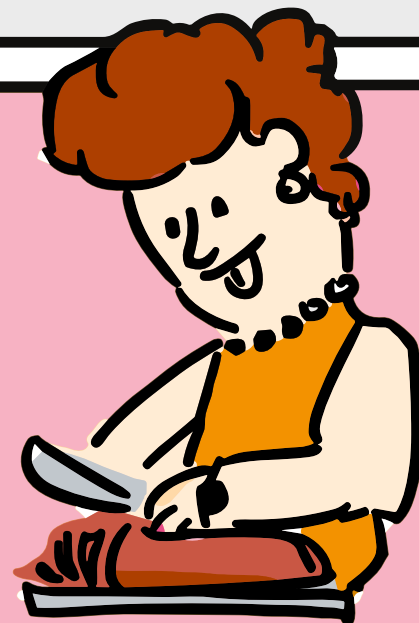
SOURCE:
1,004 RESPONDENTS,
BFR CONSUMER MONITOR 2023,
SPECIAL RAW FOOD ISSUE

+++ FOOD HABITS +++

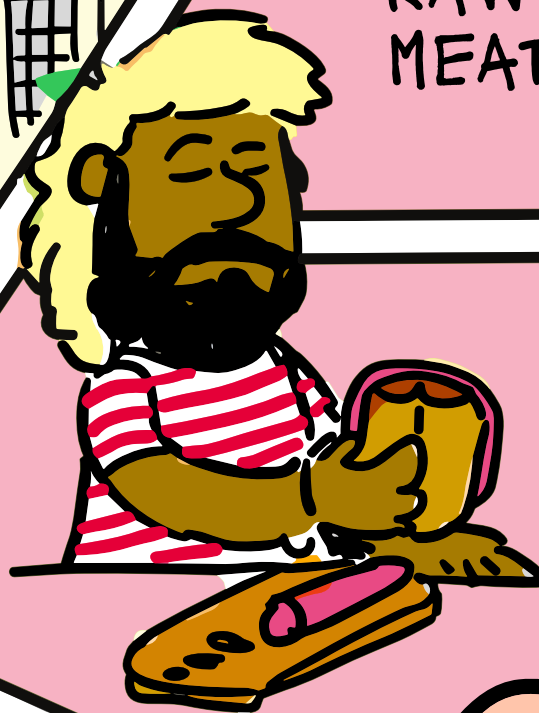
PROPORTION OF THE POPULATION THAT CONSUMES
RAW OR UNHEATED FOOD AT LEAST ONCE A
MONTH.



38%
RAW
MEAT



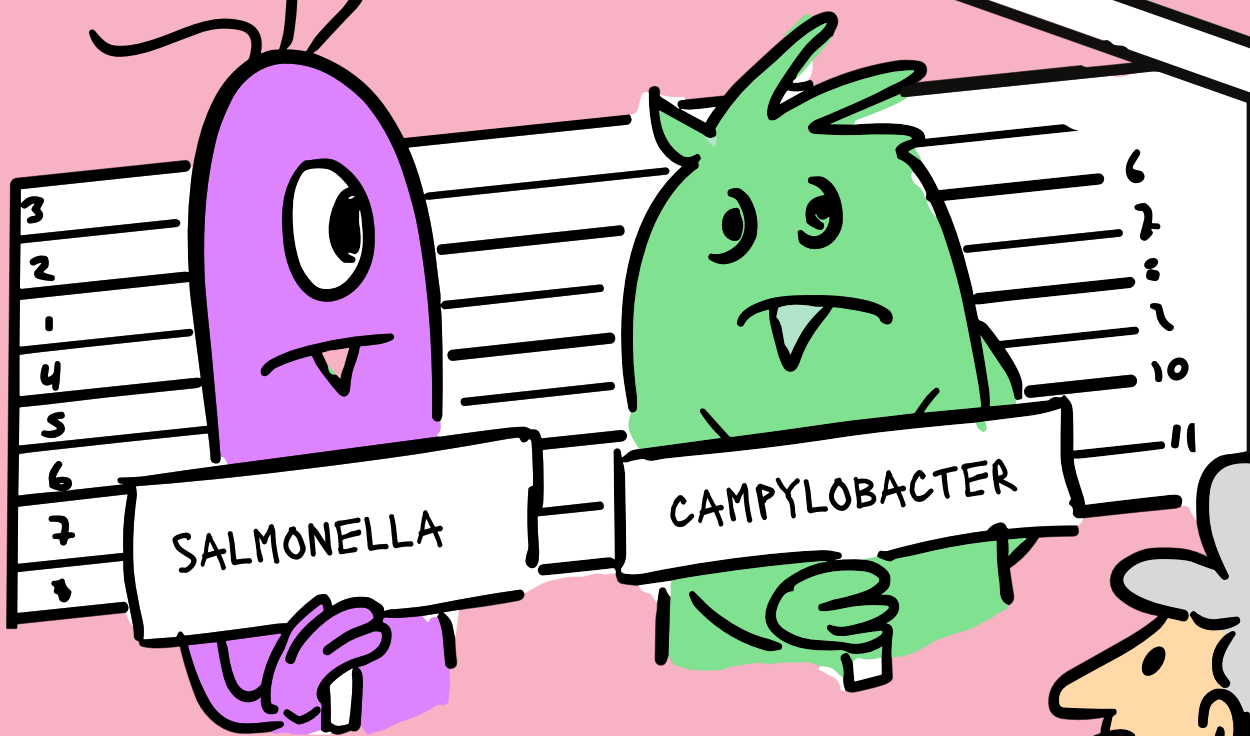
73%
RAW SAUSAGE
OR RAW HAM



57%
RAW MILK SOFT
CHEESE



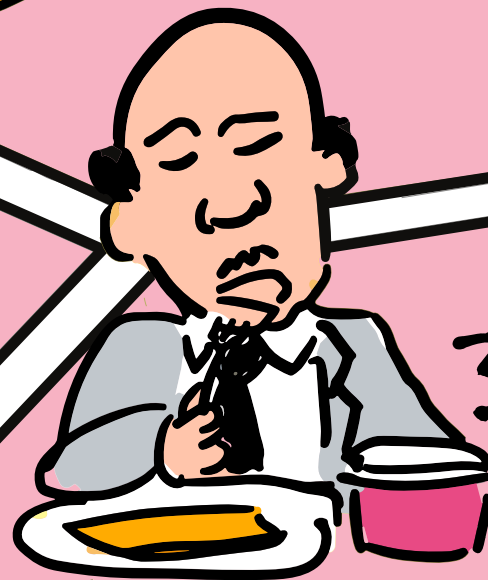
PATHOGEN AWARENESS



98% KNOW ABOUT SALMONELLA

33%

FROZEN BERRIES
AS WELL AS
COLD-SMOKED FISH



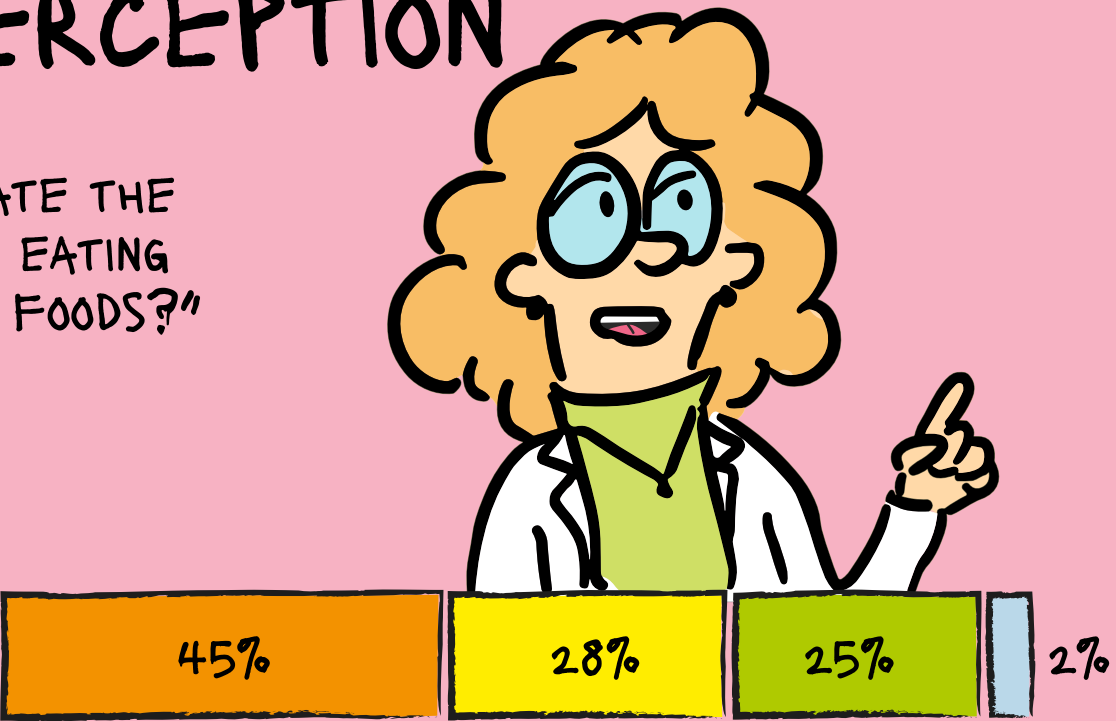
23%

ARE FAMILIAR WITH CAMPYLOBACTER, THE
CAUSATIVE AGENT OF THE MOST FREQUENTLY
REPORTED BACTERIAL FOOD-BORNE INFECTION
IN GERMANY AND EUROPE



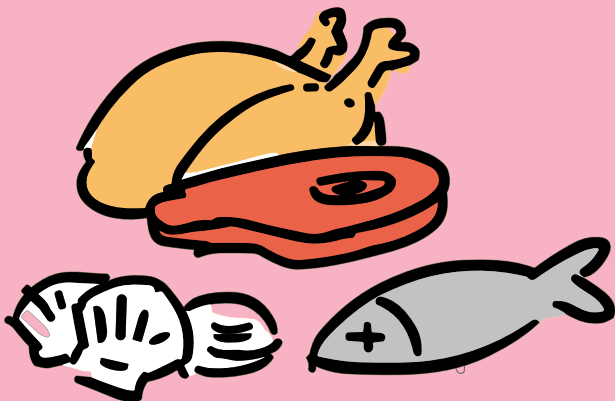
RISK PERCEPTION

"HOW DO YOU RATE THE HEALTH RISK OF EATING THE FOLLOWING FOODS?"



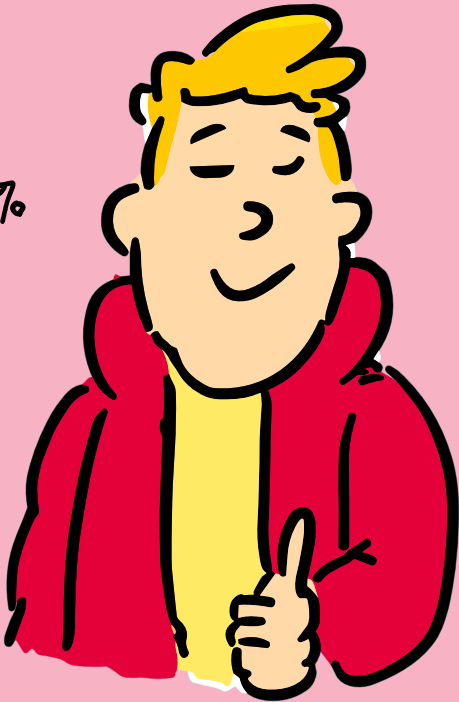
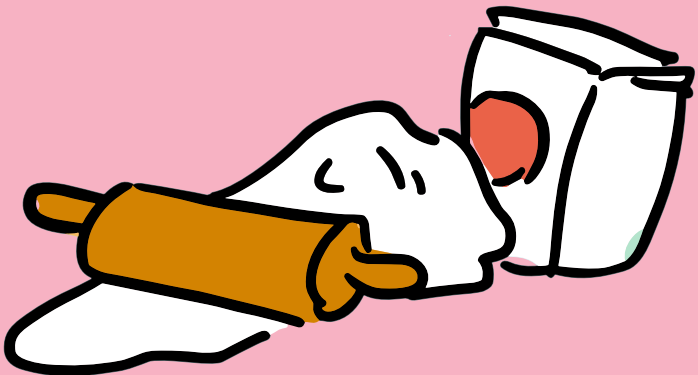
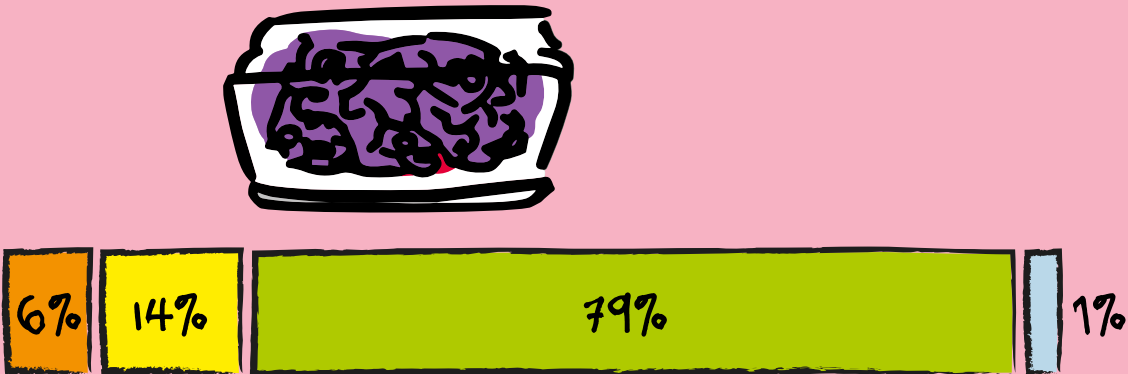
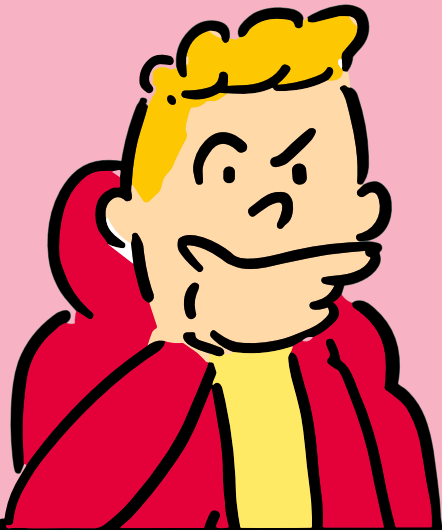
45% SEE A (VERY) HIGH RISK IN EATING RAW FISH AND SEAFOOD.

RAW MEAT AND RAW EGGS ARE CONSIDERED TO BE SIMILARLY RISKY (42%).



79% ASSOCIATE FROZEN BERRIES WITH A (VERY) LOW RISK TO THEIR HEALTH.

+++ FRUIT AND VEGETABLES CONTAIN VALUABLE NUTRIENTS. HOWEVER, ON THE WAY FROM FARM TO FORK, THEY CAN BECOME CONTAMINATED WITH PATHOGENS.



57% SEE A LOW RISK IN EATING RAW SWEET DOUGH WITHOUT EGGS

+++ ALTHOUGH IT MIGHT BE TEMPTING, WHEN PREPARING DOUGH, WITH OR WITHOUT EGGS, YOU SHOULDN'T TASTE THE RAW BATTER.

THE REASON IS THE POSSIBLE PRESENCE OF EHEC/STEC BACTERIA IN THE FLOUR! EGGS MAY CONTAIN SALMONELLA.

SOURCE:
1,004 RESPONDENTS,
BFR CONSUMER MONITOR 2023,
SPECIAL RAW FOOD ISSUE

(VERY) HIGH MEDIUM (VERY) LOW NOT SPECIFIED

THE PRINCIPLES OF FOOD HYGIENE

WASH HANDS

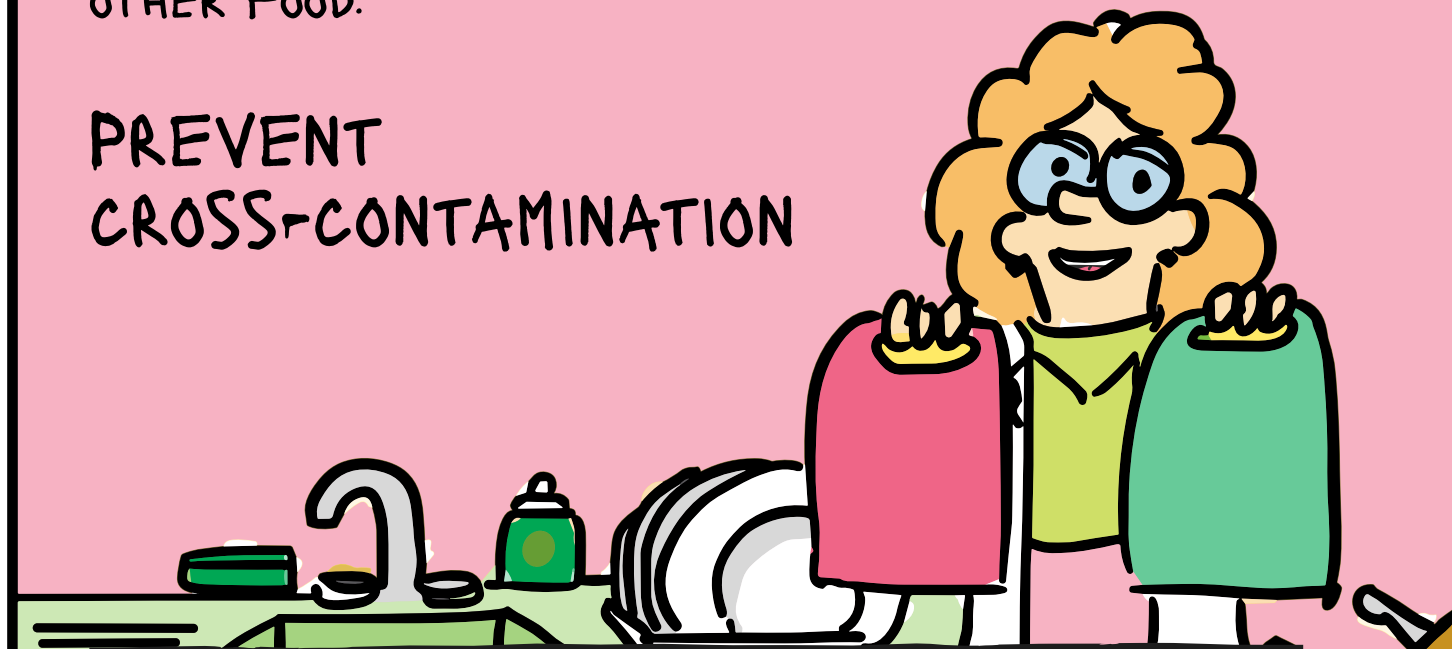
WASH YOUR HANDS THOROUGHLY WITH SOAP AND DRY THEM BEFORE PREPARING FOOD.



THIS RECOMMENDATION ALSO APPLIES BETWEEN INDIVIDUAL WORK STEPS IF YOUR HANDS COME INTO CONTACT WITH RAW FOOD.

OBSERVE KITCHEN HYGIENE RULES SO THAT PATHOGENS FROM RAW FOOD ARE NOT TRANSFERRED TO OTHER FOOD.

PREVENT CROSS-CONTAMINATION

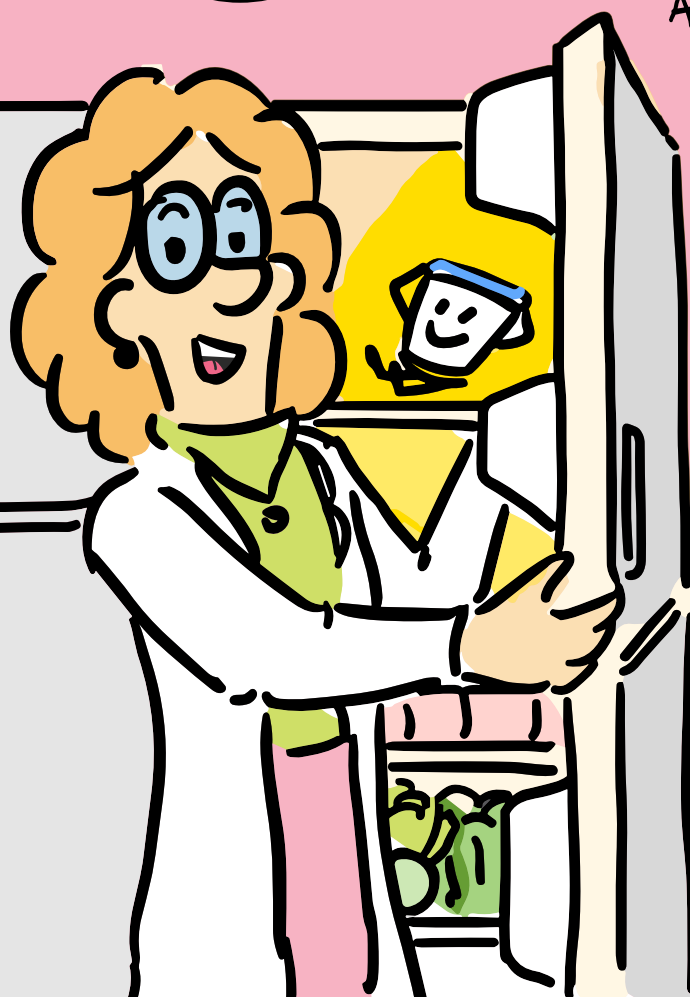


TO PROTECT AGAINST CROSS-CONTAMINATION, ONLY THOROUGHLY CLEANED KITCHEN UTENSILS, SUCH AS CHOPPING BOARDS AND CUTLERY, SHOULD BE USED FOR FOOD THAT IS NOT REHEATED BEFORE CONSUMPTION.



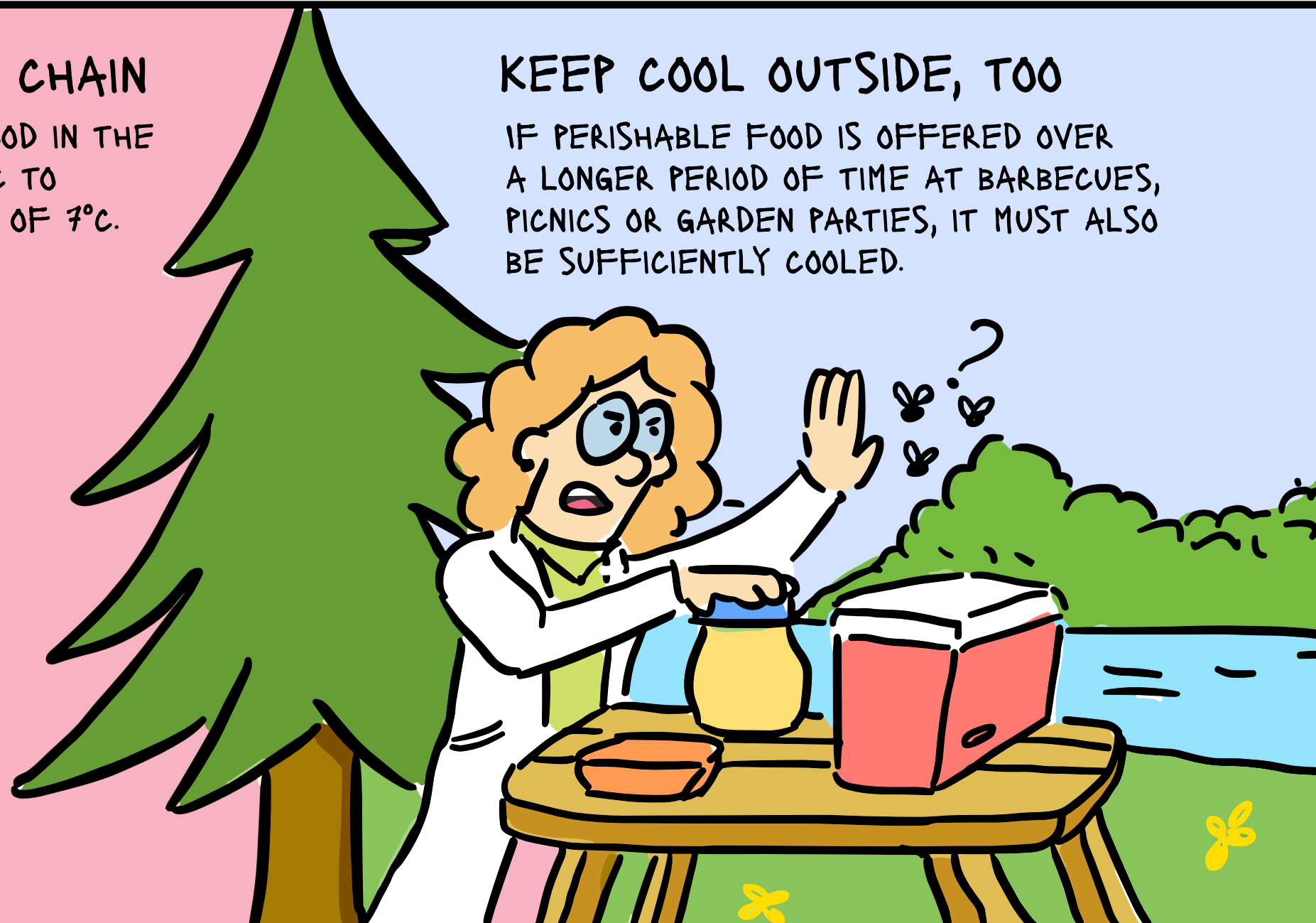
MAINTAIN COLD CHAIN

STORE PERISHABLE FOOD IN THE REFRIGERATOR AT 2°C TO A MAXIMUM OF 7°C.



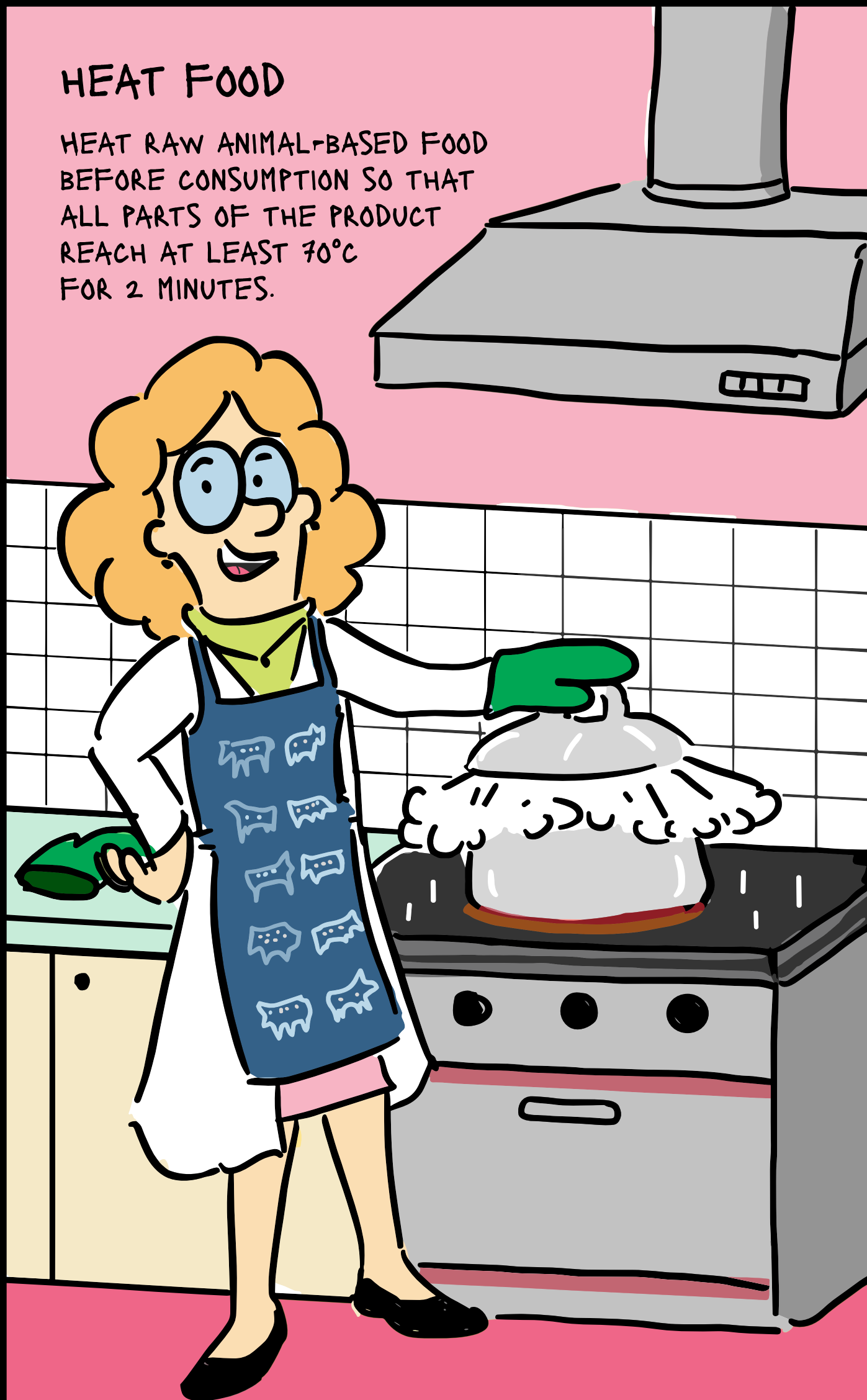
KEEP COOL OUTSIDE, TOO

IF PERISHABLE FOOD IS OFFERED OVER A LONGER PERIOD OF TIME AT BARBECUES, PICNICS OR GARDEN PARTIES, IT MUST ALSO BE SUFFICIENTLY COOLED.



HEAT FOOD

HEAT RAW ANIMAL-BASED FOOD BEFORE CONSUMPTION SO THAT ALL PARTS OF THE PRODUCT REACH AT LEAST 70°C FOR 2 MINUTES.

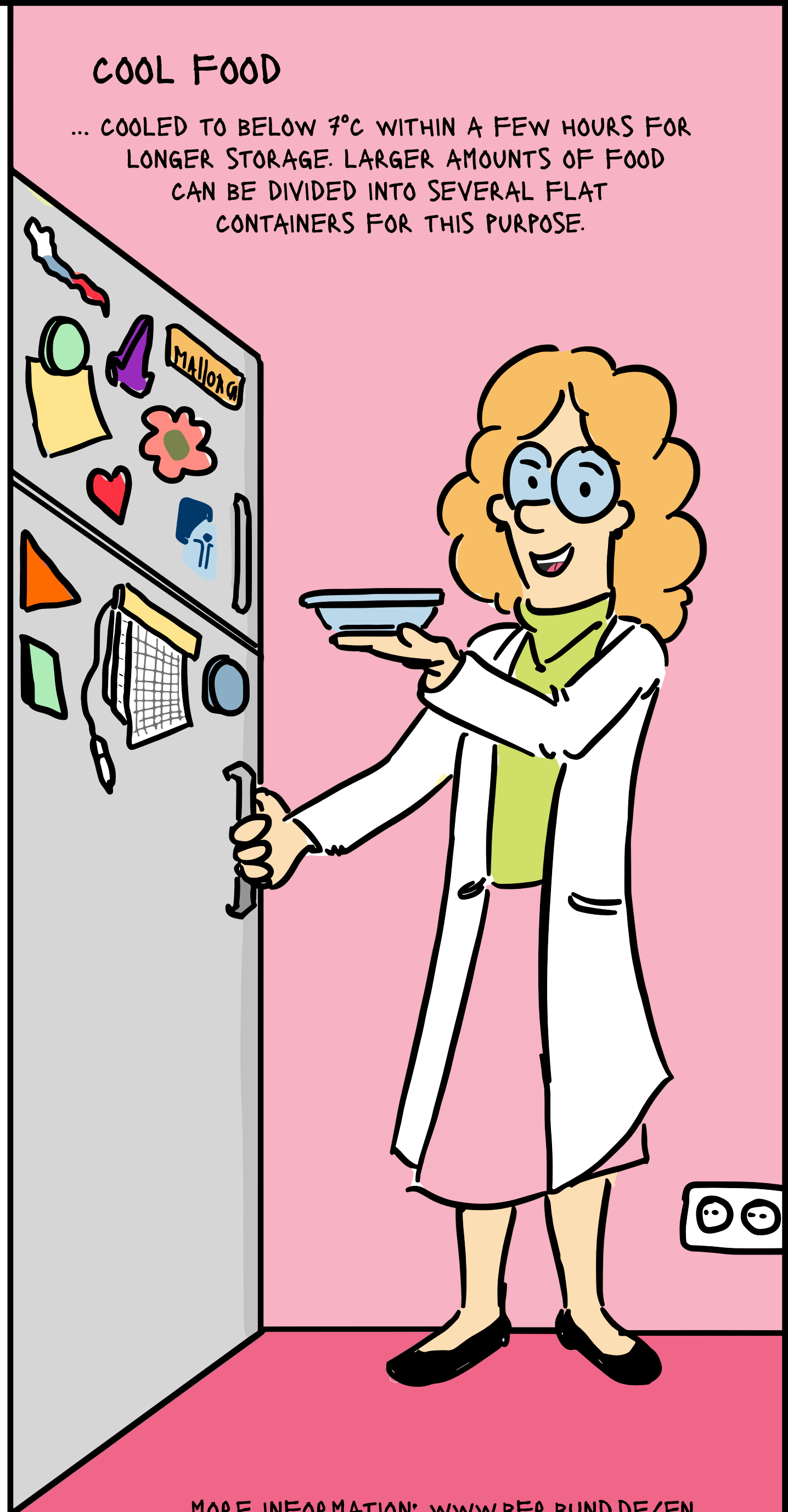


KEEP WARM FOODS WARM

WARM FOODS SHOULD BE KEPT SUFFICIENTLY HOT (AT LEAST 60°C IN ALL PARTS OF THE FOOD) OR ...

COOL FOOD

... COOLED TO BELOW 7°C WITHIN A FEW HOURS FOR LONGER STORAGE. LARGER AMOUNTS OF FOOD CAN BE DIVIDED INTO SEVERAL FLAT CONTAINERS FOR THIS PURPOSE.



MORE INFORMATION; WWW.BFR.BUND.DE/EN

This text version is a translation of the original German text which is the only legally binding version.

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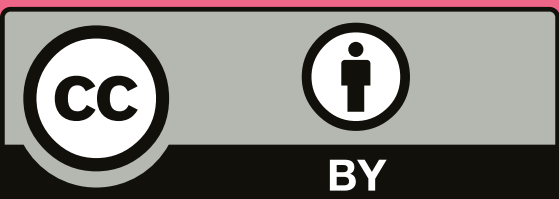
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The German Federal Institute for Risk Assessment (BfR) is a scientifically independent institution within the portfolio of the German Federal Ministry of Agriculture, Food and Regional Identity (BMLEH). It protects people's health preventively in the fields of public health and veterinary public health. The BfR provides advice to the Federal Government as well as the Federal States ('Laender') on questions related to food, feed, chemical and product safety. The BfR conducts its own research on topics closely related to its assessment tasks.



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