

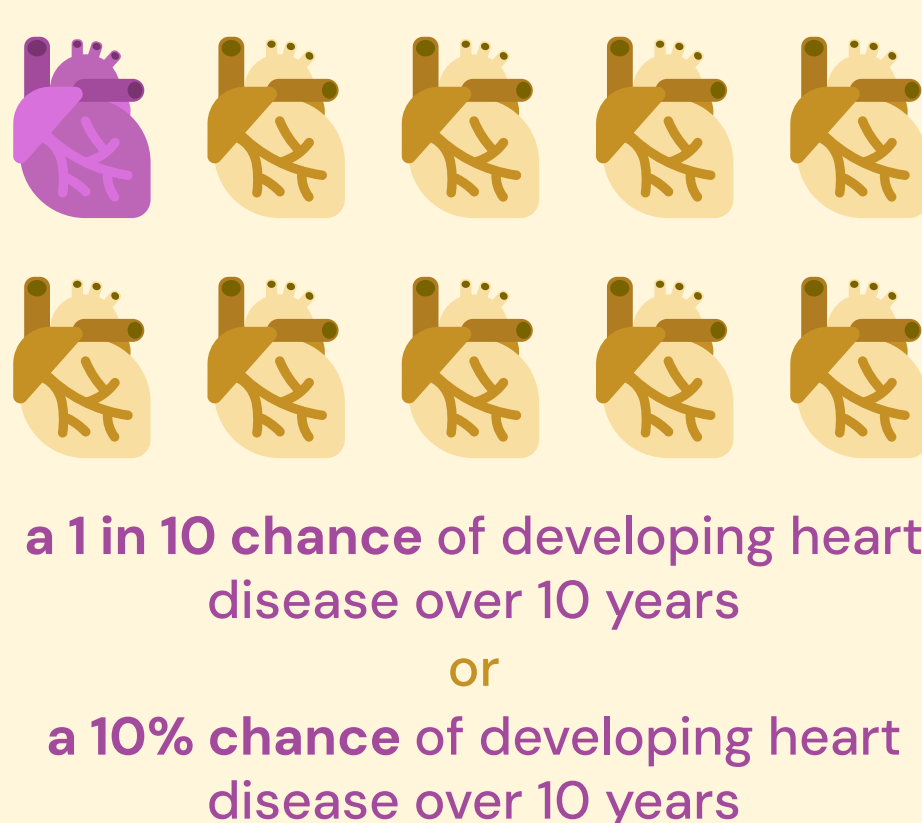
ABSOLUTE VS. RELATIVE RISK

Absolute risk is the likelihood of an event occurring in a given group over a specified period.

For instance, the chance of a person developing heart disease is based on factors such as:

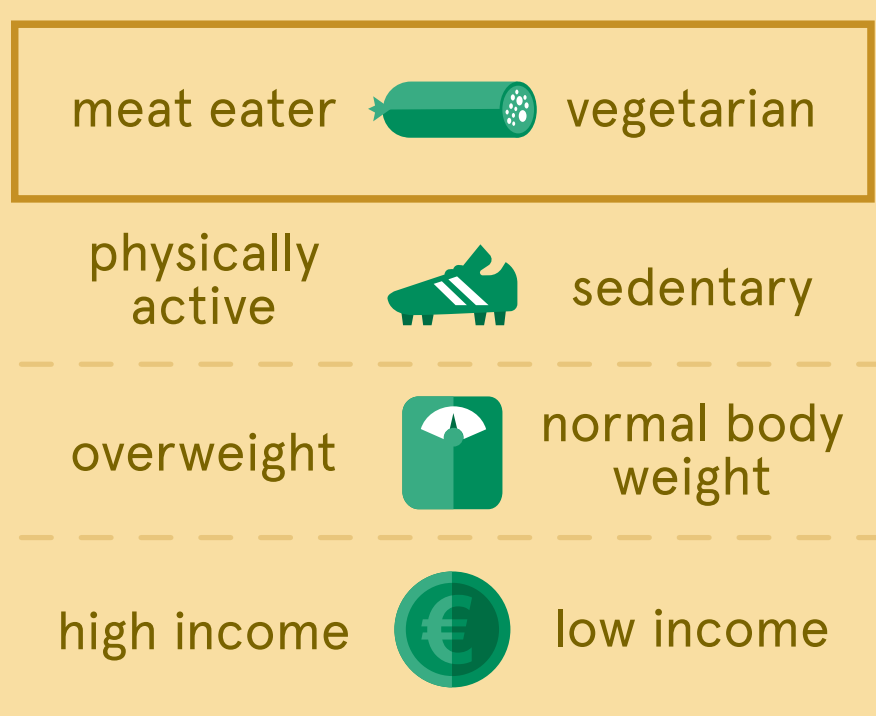


It is commonly expressed as:

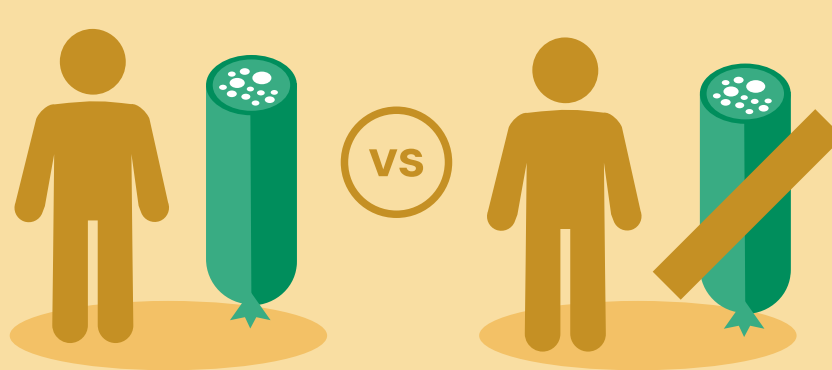


Relative risk is the likelihood of an event occurring in a given group compared to another group with different behaviours, physical conditions or environments.

examples of different comparison groups

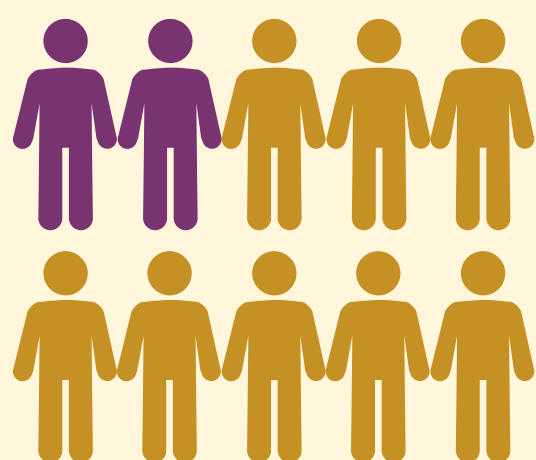


For example, people who eat 50 g of processed meat per day have an 18% increase in risk of developing bowel cancer compared to vegetarians.



Relative risks alone do not tell the full story...

If **absolute risk** is 2 in 10...



50% relative risk increase
→

...risk increases to 3 in 10.



If **absolute risk** is 4 in 10...



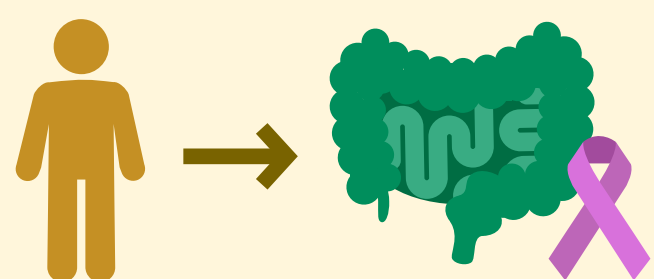
50% relative risk increase
→

...risk increases to 6 in 10.

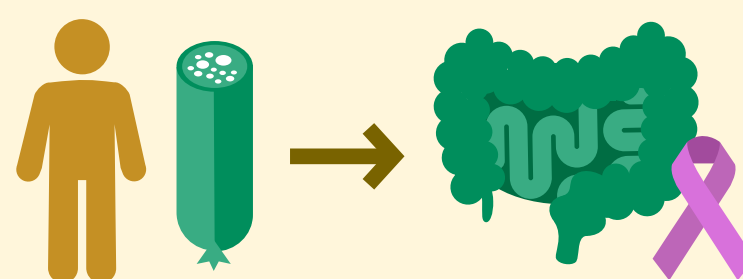


Absolute risk numbers are needed to understand **relative risks!**

Example: processed meat and bowel cancer
What does an 18% increased risk of bowel cancer really mean?



estimated lifetime risk of developing bowel cancer



estimated lifetime risk of developing bowel cancer if you eat 50 g/day of processed meat



relative risk increases by 18%
→



absolute risk is 5.6% + 1% absolute risk = absolute risk is 6.6%