Risk Number Converter

Turn a headline like "40% lower risk" into plain numbers. Fill in the blanks to see the absolute change and how many people it takes to help one.

RELATIVE AND ABSOLUTE ARE DIFFERENT

A death risk that falls from 5% to 3% is a 2-point absolute drop but a 40% relative drop. Both statements are true, so ask for the absolute numbers.

WORKED EXAMPLES, THEN YOUR OWN

Risk before	Risk after	Absolute change	Relative change	People for 1 to benefit
5%	3%	2 points	40% lower	50
4%	3%	1 point	25% lower	100
4%	2%	2 points	50% lower	50
4%	1%	3 points	75% lower	33
0.5%	0.4%	0.1 point	20% lower	1,000

THE TWO FORMULAS

Absolute change is risk before minus risk after. People for one to benefit is 1 divided by the absolute change as a decimal. A hazard ratio of 0.82 means 18% lower, and 1.8 means 80% higher.

QUESTIONS TO ASK

- [ ] What is the risk without it, in plain numbers such as per 1,000 people?
- [ ] What is the absolute change, not only the percent change?
- [ ] Over how many years was that measured?
- [ ] Were the people studied like me?

Sources: Standard risk arithmetic, as taught in a 2021 episode on reading studies. Examples are illustrative, not from one trial.

Educational only. Not medical advice, and not a diagnosis. Take this to your own clinician. vitalsvault.com