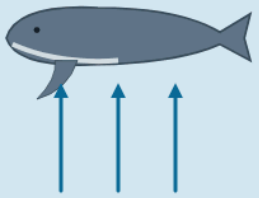
That is why

Why do beached whales die if they breathe air?

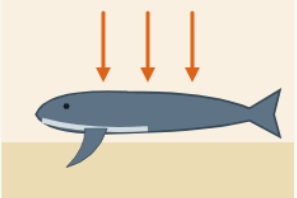
In the sea, water holds up a whale's weight and carries off its heat; on a beach, its own body does it harm.

A Who carries the weight?

In the sea
water pushes up



On the beach
all the weight presses down



How heavy? (NOAA Fisheries)
US tons

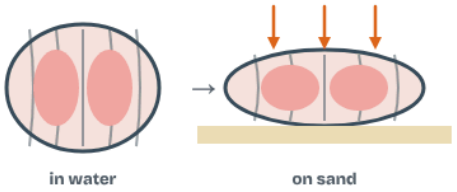


Blue whale: up to 110 feet long.

"Ocean water exerts pressure that allows cetaceans to support their mass." (GREMM)

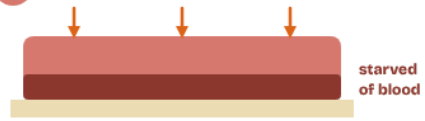
B Three ways the beach kills

1 The chest is squeezed



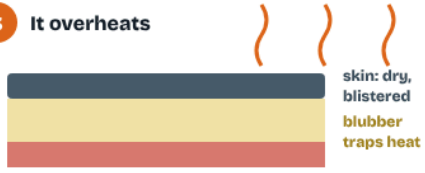
Lungs can't fill, and blood flow can fail.

2 Muscles are crushed



Pressure necrosis. Refloated whales can still die hours later, from crush injuries.

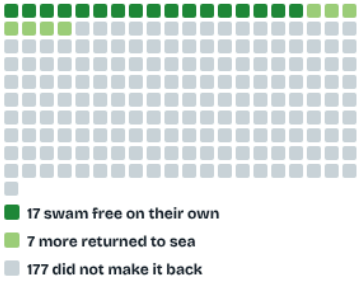
3 It overheats



No water to carry the heat away; it also loses moisture through its breath.

C Hard to save

Large whales stranded alive
United States, 2006–2025



201 alive on the beach, 24 back to sea

Why rescuers go gently

- **Pulling the tail** — can dislocate it or paralyze
- **Dredging the sand** — it rolled in and drowned
- **Rising tide** — can cover the blowhole
- **Wet sheets, buckets** — keep the skin cool: helps

Built to float: on land, the whale's own weight is the danger.

Free for learning thatiswhy.com

Free for learning, teaching and research. Please credit: That Is Why, thatiswhy.com

Diagram: https://thatiswhy.com/diagrams/why-do-beached-whales-die/ · Full guide: https://thatiswhy.com/why-do-beached-whales-die/