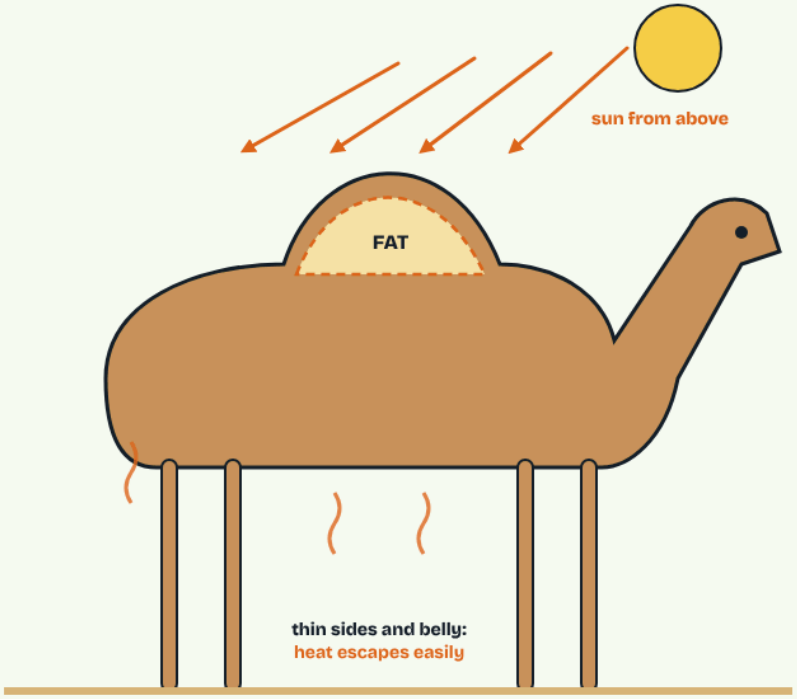
That is why

What is in a camel's hump?

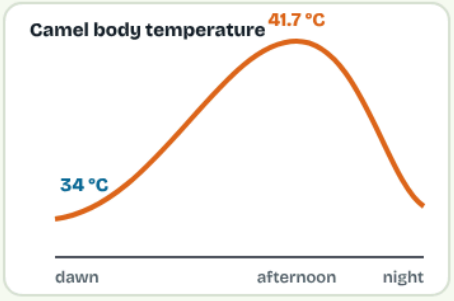
Fat, not water. Keeping the fat in one lump on top lets the rest of the body shed heat, and stores energy for lean times.

A Fat on the roof, thin walls



Spread all over, the same fat would wrap the camel like a blanket. Piled on top, it shades the body and leaves the rest free to cool.

B Hot by day, cool by night



A camel lets its body warm up by day instead of sweating, saving water. At night it releases the heat into the cold desert air.

1 Fuel tank

When food is short, the fat is used and the hump droops.

2 Not a water tank

Burning fat makes some water, but breathing loses water too.

C Water champions

100 L

drunk in about 10 minutes after a long trek

over 30%

of body weight can be lost as water and the camel survives

oval

red blood cells keep flowing when the blood thickens

One hump or two?

Dromedaries have one hump, Bactrian camels two. Calves are born without humps: the fat builds up once they eat solids.

A camel hump is insulation and a pantry, not a canteen.

Free for learning thatiswhy.com

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

Diagram: https://thatiswhy.com/diagrams/why-camels-have-humps/ · Full guide: https://thatiswhy.com/why-camel-humps-are-heat-engines/