

Womb temperature determines the sex of the offspring in many reptiles. Why not in humans?

Temperature controls sex determination, in all [crocodilians](#), most [turtles](#), many fish, and some lizards, according to organismal biologist Karla Moeller at Arizona State University. Within a specific window of time during the embryonic development of these animals, heat or cold can influence the production of sex hormones, which in turn can sway a hatchling's fate.

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All known species with temperature-dependent sex determination are both oviparous, or egg-layers, and cold-blooded, meaning their body temperatures change with that of their surroundings. However, humans are neither of those things.

As such, “temperature-dependent sex determination in humans is not very likely because you would need, at a minimum, two different body temperatures — one that would trigger female development and one that would trigger male development,” [biologist Diego] Cortez said. “But the human body is always at 37 degrees Celsius (98.6 degrees Fahrenheit).”

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For temperature-dependent sex determination to exist in humans, [geneticist Jennifer] Graves suggested one possibility is that we somehow become poikilotherms — that is, unable to control our body temperature — much like [the naked mole-rat](#). Another possibility is that instead of live births, we were to somehow lay eggs like a [platypus](#), she added.

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