

Why do men have nipples? This is one of those questions that crop up time and time again – at school, at work, at parties. Despite their decorative advantages (imagine the male torso with out them), male nipples seem to have no obvious function (above the belt anyway). Some biologists consider them ‘vestigial’, which refers to a part of the body that has become functionless as we evolved. But you don’t need to think about it in terms of evolution. Think of vestigial body parts a bit like the items in your junk drawer. You do have a junk drawer, right? Filled with old things that you used to use, but don’t anymore – keys to the old house or car, buttons for clothes that you gave to the op shop ages ago. You keep them around, just in case. Male nipples don’t really seem to fit this vestigial, junk drawer, category, since there is no evidence that nipples on males were ever used for anything.

But vestigial or not our question remains: why do men have nipples? The reason harkens back to embryonic development. When you were in the womb very early in your life, whether you are male or female, genes encoded by your DNA were turned on to make your various body parts – kidney genes, heart genes, and breast genes, including genes for making nipples. But hang on a minute; males and females don’t have all the same body parts, so how do we get male parts and female parts. The answer lies in our sex chromosomes; X and Y. Females have two X chromosomes, whereas males have one X and one Y. The X chromosome has genes for making female things. Yes, that’s right: men have genes for making female things. But they also have a Y chromosome, which has genes for blocking the formation of female things. OK, so why the nipples?

As it turns out body parts are made in an embryo on a very tight schedule. We have nine months to get all our bits made and for them to grow, so that when we’re born our bodies actually work. Male nipples form because of a quirk in this timing. In order for the genes on the male Y chromosome to suppress female things, they need to be turned on before the genes for the female things. This is timed right for most female-only body parts. But breast formation starts very early, before the blocking genes on the Y chromosome are turned on. Thus, men have nipples because their Y chromosome doesn’t get its act together until breast formation has already been programmed. And once nipples are “go”, there’s no turning back.