



FIGURE 21.5. Genes inherited through one sex gain if they promote production of that sex. (*Left*) Mitochondrial DNA (mtDNA) in animals and flowering plants is inherited maternally. If each mother has one son and one daughter, the number of copies of her mtDNA in females (which is all that matters for the future) stays the same (*left*). However, if she carries mtDNA that causes only daughters to be produced (*right*), then the number of copies in females doubles every generation. The pairs of wavy black lines indicate the diploid nuclear genome, and the green circles indicate the mitochondrial genome. Males are blue; females are pink.