FIGURE 26.14. The CCRΔ5 gene strongly influences susceptibility to AIDS and is therefore under strong selection (see p. 434). The graph shows the relative fitness of genotypes that alter the onset of AIDS plotted against the delay in onset; the middle line is based on data from South Africa, where the incidence of HIV infection was ~20% in 1999. The upper and lower curves show fitness in populations with higher (~1.8 times) and lower (~0.2 times) incidence of HIV infection, respectively. The most common resistance genotypes have about 50% greater fitness than the most common susceptible genotypes, based on South African data. Comparing the three curves, we see that the strength of selection increases with increasing incidence of AIDS.


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