

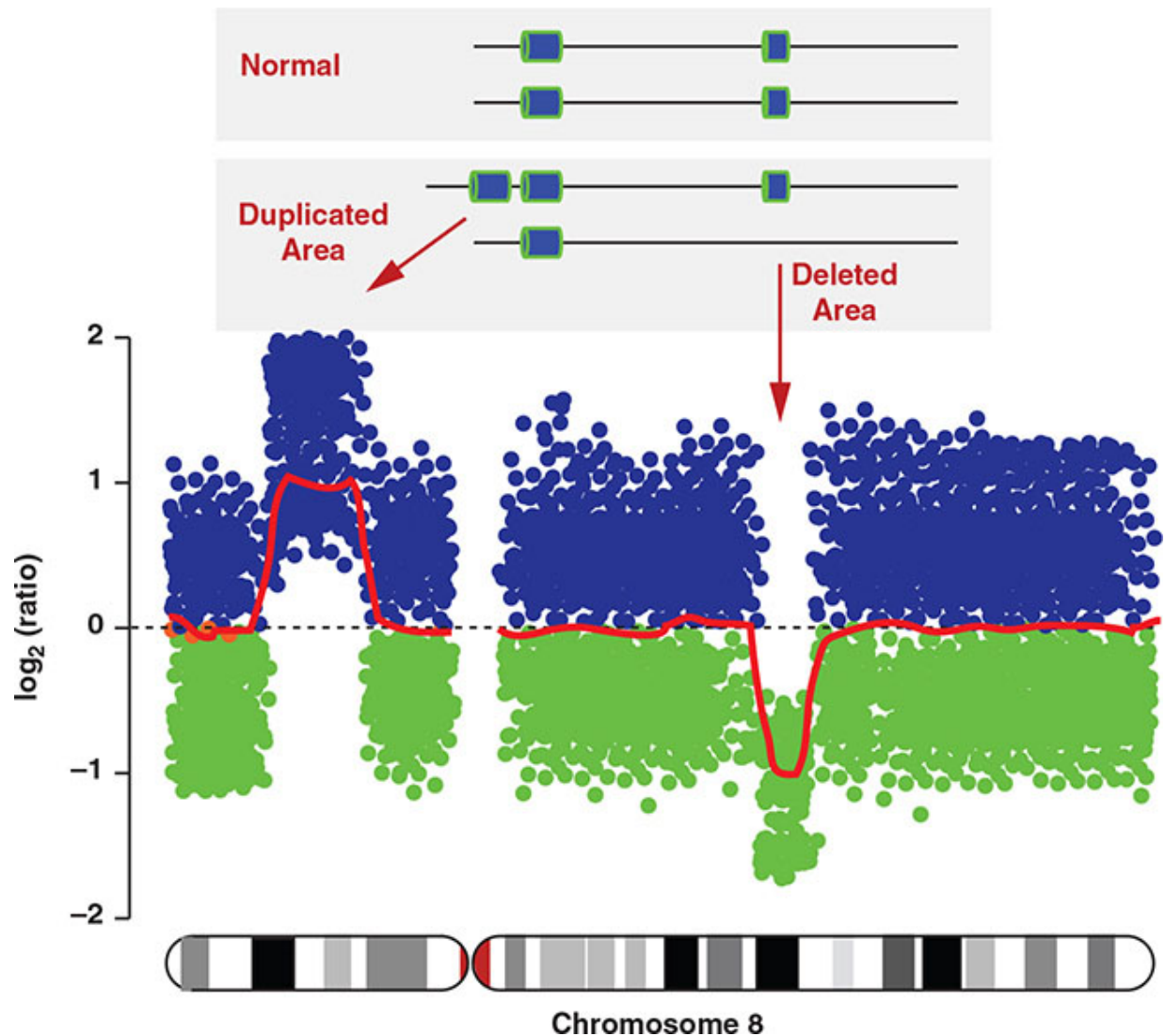


FIGURE 466-5 Copy number variations (CNV) encompass relatively large regions of the genome that have been duplicated or deleted. Chromosome 8 is shown with a CNV detected by genomic hybridization. An increase in the signal strength indicates a duplication, whereas a decrease reflects a deletion of the covered chromosomal regions.

Replication of DNA and Mitosis Genetic information in DNA is transmitted to daughter cells under two different circumstances: (1) somatic cells divide by *mitosis*, allowing the diploid ($2n$) genome to replicate itself completely in conjunction with cell division; and (2) germ cells (sperm and ova) undergo *meiosis*, a process that enables the reduction of the diploid ($2n$) set of chromosomes to the haploid state ($1n$).