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# Nonhomologous DNA End Joining

National Cancer Institute

## Source

National Cancer Institute. *Nonhomologous DNA End Joining*. NCI Thesaurus. Code C20207.

Non-homologous DNA end joining (NHEJ) can only repair double-strand breaks in which two DNA ends are rejoined by DNA ligase at regions of little or no homology to avoid degradation by DNA nucleases or noncomplementary overhanging ends. However, the disadvantage is that it can lead to loss of information from the DNA because of resection of the broken ends. NHEJ is operational throughout the cell cycle but may be more important during G1, prior to DNA replication, or in cells that are no longer cycling.