

Stage Three : Termination

As the new DNA is built by polymerase, it proofreads each base (H bonding correct ?, y or n ?) , and both new DNA molecules twist back into their double helix shape (natural result...due to the attractions between neighboring atoms)

Each Okazaki fragment on the lagging strand has had its RNA primer removed, the gaps between fragments are only half filled with new nucleotides...so each DNA molecule gets about 100 base pairs shorter each time its copied.

To prevent gene loss, each c'some has a repeating sequence of TTAGGG 1000's of times over at its end...a buffer zone called a telomere (built by telomerase)...related to the lifespan of the cell.

An interaction between many enzymes (a replication machine) proofreads the DNA molecules for mistakes, replacing nucleotides when necessary. Errors reduced from 1 in 10-100 000 to 1 in 1000000000.