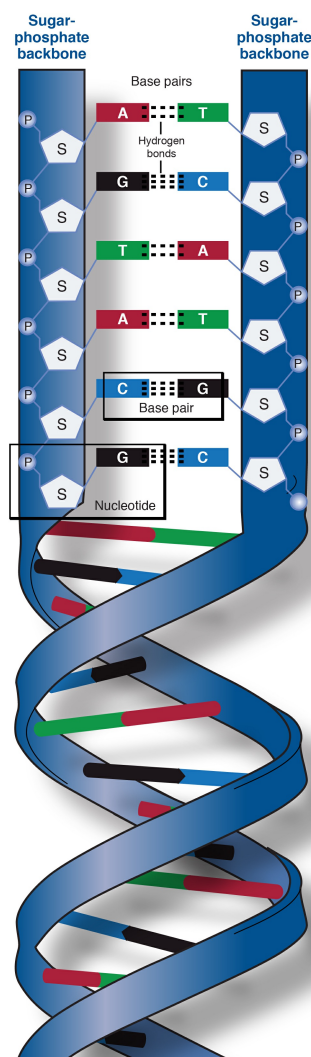


# Phosphate Backbone

National Human Genome Research Institute (NHGRI)

## Source

National Human Genome Research Institute (NHGRI). *Phosphate Backbone*.



A phosphate backbone is the portion of the DNA double helix that provides structural support to the molecule. DNA consists of two strands that wind around each other like a twisted ladder. Each strand has a backbone made of alternating sugar (deoxyribose) and phosphate groups. Attached to each sugar is one of four bases--adenine (A), cytosine (C), guanine (G), or thymine (T). The two strands are held together by bonds between the

bases, with adenine forming a base pair with thymine, and cytosine forming a base pair with guanine.