

# Nicotinamide adenine dinucleotide

 For more information see *NADH*, *NADPH*.

Oxidized ( $\text{NAD}^+$ , top) and reduced ( $\text{NADH} + \text{H}^+$ , bottom) form of nicotinamide adenine dinucleotide **Nicotinamide adenine dinucleotide**, NAD, and its structurally similar nicotinamide adenine dinucleotide phosphate (NADP), are among the most important coenzymes of oxidoreductases. The oxidized and reduced states differ by two electrons (in the reactions, oxidoreductases dependent on NAD alone can always transfer only an even number of electrons). Electrons are transferred together with protons ( $2 \text{ e}^- + 2 \text{ H}^+$ ), possibly as other reducing equivalents; schematically, therefore, we write that the oxidized and reduced states differ by 2 H.