Hydrogen bonding

- The hydrogen bond is one specific kind of noncovalent interaction
- The structure + properties of many biological molecules + of water are determined by H bonds
- A H bond is an interaction between a covalently bonded hydrogen atom on a *donor* atom + a pair of nonbonded electrons on an *acceptor* atom
- The atom to which hydrogen is covalently bonded to is called the *hydrogen-bond donor* + the atom to with the nonbonded electron pair's called the *hydrogen-bond acceptor*
- The interaction between the donor + acceptor is typically represented by a dotted line between the acceptor atom + shared H
- The ability of an atom to function as a hydrogen-bond donor depends greatly on its electronegativity
- The more electronegative the donor atom→ the more negative charge it withdraws from the H to which its bonded→ so the H becomes more positive + more strongly attracted to the electron pair of the acceptor