

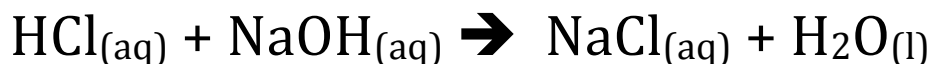
# Neutralization

**neutralization:** adding a base to an acid neutralizes both the acid's acidic properties and the base's basic properties

This reaction always produces a **salt** (an ionic compound) and **water**.

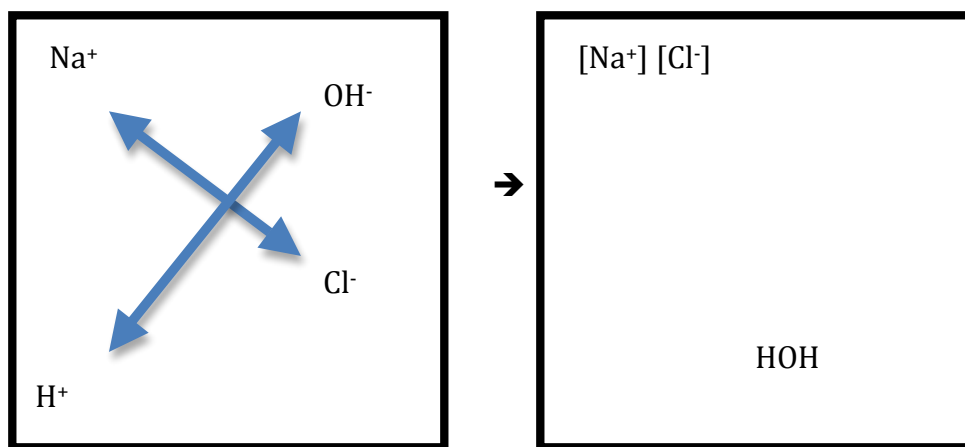


**Neutralization** is really just simply a **double displacement reaction**.



The  $\text{OH}^-$  (from the base) and the  $\text{H}^+$  (from the acid) react to form  $\text{H}_2\text{O}$ .

Remember that acids and bases dissociate (break apart) in water.



The use of antacids against upset stomachs is neutralization. An antacid is basic so the  $\text{OH}^-$  of the antacid reacts with the  $\text{H}^+$  of the  $\text{HCl}$  in the stomach. This destroys the acidic property of the stomach acid.