**Naming Acids and Their Salts**

**Remember:** To be named as acids they must be aqueous solutions.

Otherwise, H cpds are named as if they were group 1A ionic compounds even though they are polar covalent compounds.

e.g. HCl(g) is hydrogen chloride and NOT hydrogen monochloride!

When the anion does not contain oxygen the acid is a **Binary** acid.

e.g. HCl, HBr

Use the prefix Hydro plus the root of the anion’s name plus the IC ending.

e.g. HCl(aq) hydrochloric acid

HBr(aq) hydrobromic acid

When the anion contains oxygen it is a **Ternary** acid—an **Oxy-Acid**.

Do Not use the prefix hydro!

The name depends on the name of the polyatomic anion.

The name depends on the number of oxygens in the polyatomic ion.

The prefices and suffices are:

**ACIDS—H-NM** **SALTS—M-NM NUMBER OF OXYGENS**

PER IC PER ATE 1 MORE OXYGEN

IC ATE STANDARD NUMBER

OUS ITE 1 LESS OXYGEN

HYPO OUS HYPO ITE 2 LESS OXYGEN

You must know the Standard IC oxy-acids by heart before you can start manipulating the prefices and suffices.

e.g. HClO3 is chloric acid. There are 3 oxygens in the standard IC acid.