Naming Acids

Type 1: Binary Acids

- Only H and another element are present.
- The anion does NOT contain oxygen.
- Ex: $HBr_{(aq)}$ (means HBr dissolved in water)
- Prefix: hydro- Suffix: -ic
  - Hydrobromic acid

- $H_2S_{(aq)}$ = Hydrosulfuric acid

Type 2: Oxyacids

- The anion contains oxygen
- If anion ends in **ATE** - suffix is **ic**

  Ex: $H_2SO_{4(aq)}$ sulphur**ic** acid

  (*** do not use hydro)
- $HC_2H_3O_{2(aq)}$ Acetic acid

Writing Formulas of Oxyacids
The "ic" acids

H_1NO_3	Nitric Acid
H_1ClO_3	Chloric Acid
H_2CO_3	Carbonic Acid
H_2SO_4	Sulfuric Acid
H_3PO_4	Phosphoric Acid

Type 2: Oxyacids

- If the anion ends in **ITE** – the suffix is **ous**

$H_2SO_{3\ (aq)}$ sulphur**ous** acid

$HNO_{2(aq)}$ Nitrous acid

Note: If the anion is a **per**…**ate** the acid is a **per…ic** acid

$HClO_{4(aq)}$ Perchloric acid

If the anion is a **hypo**…ite the acid is a **hypo**…ous acid

$HNO_{(aq)}$ Hyponitrous acid

$HNO_{4(aq)}$ Pernitric acid

$HNO_{3(aq)}$ Nitric acid

$HNO_{2(aq)}$ Nitrous acid

$HNO_{(aq)}$ Hyponitrous acid

Name these!

- $H_2SO_{4(aq)}$
- $HC_2H_3O_{2(aq)}$
- $H_2SO_{5(aq)}$
- $H_3PO_{4(aq)}$

e) HF

f) $HNO_{2(aq)}$

g) $HClO_{(aq)}$

h) $HBr_{(aq)}$