**Total Albumin Protein Total Protein - Albumin = Protein Gap (PG)** lf T. Bili elevated. Direct **Total** ure out whether (conjugated) **Bilirubin** conj. or unconj. Bilirubin n Liver, but also from: **AST ALT** e Breakdown isolated AST elevation increased AST, **Al Phos** But Alk Phos elevation can also come from bone.

So get a GGT, as it's specific to

the biliary tree.

CK or CPK

: Rhabdo

Cirrhosis (can't make the proteins)
If PG > 4, that means that there is a
Nephrosis (pee out the proteins)
If PG > 1, that means that there is a
Nephrosis (pee out the protein that isn't albumin, Gastrosis (protein losing lentaropathymorunoglobumalnutritionini Keirkwashibirkothat causes increased immunoglubulins, namely:

Labs for

(ELISA

(Hep C

(Spep,

**Auto-Immune** Sepsis if PG > 4, think  $\leq$ HIV Hep C Pretty much all Multiple Myeloma D. Bili elevation is from Biliary Tree pathology

AST: ALT of 2:1 or greater, Think ETOH Hepatitis or Cirrhosis

> Black = Liver Enzymes Green = Biliary Tree Red = Pre-

If you see AST and ALT in the 1000's think: Budd-Chiari (any clot in the portal system) **Auto-Immune Hepatitis Acute Viral Infxn Shock Liver** Tylenol