

KISS: Abnormal Liver Function Tests in Pregnancy

References: [BMJ 2013;347:f6055](#)

Interpretation of LFTs during pregnancy can be difficult as the normal ranges are different from nonpregnant women and alter with each trimester. Consider testing if:

- **Pruritis - commonest symptom:**
 - 25% of pregnant women will have pruritis (without a rash); in most cases this is benign.
 - Intrahepatic cholestasis of pregnancy needs to be considered (affects 0.7% in UK)
 - Check LFTs and serum bile acids (latter is predictive of adverse outcomes)
 - Associated with preterm labour, foetal hypoxia and interuterine death.
 - ALT and bile acids raised, bilirubin usually normal.
 - If present, referral for urgent gynaecology review is required.
- **Other conditions** which may be associated with abnormal LFTs include **pre-eclampsia and HELLP syndrome, acute fatty liver of pregnancy** (rare, very different from normal fatty liver, a medical emergency with mortality of 12-18%), and **hyperemesis gravidarum**.
- **Medications**
 - Certain drugs taken during pregnancy can cause hepatocellular damage (e.g. paracetamol, methyldopa, amoxicillin, co-amoxiclav, some antiretrovirals) or cholestasis (e.g. amoxicillin, flucloxacillin, progestogens, oestrogens, some antipsychotics, PPIs).
 - Affected women are usually asymptomatic and it is an incidental finding.
 - The drug should be withdrawn and an alternative used if required.
- **Testing is also indicated with a history of exposure to infectious contacts or risk factors for bloodborne infections, and in those at high risk of liver disease** (e.g. previously affected pregnancies, a FHx of liver disease in pregnancy, pre-existing liver disease).
- **Refer to gynaecology**

Abnormal LFTs may be due to a non-pregnancy specific disease such as non-alcoholic steatohepatitis (the most common cause in the UK), gallbladder disease, viral hepatitis, primary biliary cirrhosis, primary sclerosing cholangitis, etc. Specialist liver advice should be consulted.

Liver Enzyme	Not pregnant	Pregnant	1st trimester	2nd trimester	3rd trimester
ALT (IU/L)	0–40	–	6–32	6–32	6–32
AST (IU/L)	7–40	–	10–28	11–29	11–30
Bilirubin (µmol/L)	0–17	–	4–16	3–13	3–14
GGT (IU/L)	11–50	–	5–37	5–43	3–41
Alk. phos. (IU/L)	30–130	–	32–100	43–135	133–418
Albumin (g/L)	35–46	28–37	–	–	–