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Flowchart for high alkaline phosphatase (ALK)

(GP)

Raised ALK - ALT normal

↓

ALK > 132 U/L
Ref range is method dependent
(Rotherham = 39-132)

→

Recheck in **fasting** state (may be intestinal form of ALK)

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↑ **GGT** - likely to be **liver**

↓

Check **ALK isoenzymes**

Consider **liver U/S** if **drugs** excluded as cause and raised ALK persistent

→

GGT normal - likely to be **bone**

↓

Check
- **calcium**
- **ALK isoenzymes**
- **Vitamin D**
- **PTH**

↓

Measurement of
- **bone ALK** (serum)
- **urine NTX** (20ml, 2nd void)

and a **bone scan** may be required

↓

Age - levels of up to about 500 U/L may be seen during growth spurts in children

Pregnant - placental ALK (NB may co-exist with liver / bone problems)

As with most biochemistry a trend over time may be more important than the actual level found at a given time