specialist. Blood tests may include FBC, blood film, PTH, LFTs, LDH, calcium (plasma or serum), phosphate (plasma or serum), albumin (plasma or serum), protein (total), protein electrophoresis (serum), CRP and Bence Jones protein (urine).[2][8][9] Other investigations such as FNAB, tissue biopsy, bone biopsy (fracture site), bone marrow aspiration and trephine biopsy may be considered as appropriate.[9]

8.4.1.3
Risk factors

Osteosarcoma has been associated with radiotherapy treatment for cancer during childhood (risk increases with treatment at a younger age and/or being treated with higher doses of radiation), chemotherapy treatment for cancer during childhood (e.g. alkylating agents) and genetic disorders such as retinoblastoma, Li-Fraumeni syndrome and Rothmund-Thomson syndrome.[3][1][4] Rapid bone growth *in utero* (i.e. high-birth weight) and at puberty (i.e. above average height) may also increase the risk of osteosarcoma.[10]

The key risk factor for Ewing sarcoma is race, with Caucasian youth typically affected.[1][4]

However, bone tumours can occur in AYAs without any of these risk factors.

8.4.2 References

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8.5 Soft tissue sarcoma