

The following table is not an exhaustive list of clinical features – it is important to remember that children and young people can present atypically.⁹¹⁻⁹³

Cancer type	Associated symptoms	
Leukaemia	<ul style="list-style-type: none">■ fever■ recurrent or persistent infection■ pallor■ fatigue■ generalised bone pain and/or limp	<ul style="list-style-type: none">■ hepatosplenomegaly■ lymphadenopathy■ bleeding■ petechiae■ any of the features found in NHL (see below)

Cancer type	Associated symptoms	
Lymphoma: Hodgkin's	<ul style="list-style-type: none"> ■ lymphadenopathy typically progressing over weeks-months ■ fever ■ sweats (drenching and at night) 	<ul style="list-style-type: none"> ■ pruritus ■ weight loss ■ breathlessness
Lymphoma: Non-Hodgkin's (NHL)	<ul style="list-style-type: none"> ■ lymphadenopathy (particularly cervical) ■ splenomegaly ■ abdominal distension ■ sweats 	<ul style="list-style-type: none"> ■ fever ■ pruritus ■ weight loss ■ breathlessness
Lymphoma (either type)	<p>Lymphoma can present with a mediastinal mass (see good practice) causing:</p> <ul style="list-style-type: none"> ■ airway compromise – wheeze, stridor, orthopnoea ■ superior vena cava obstruction – breathing difficulty with facial swelling 	
Brain tumour	<p>See – Better Safe Than Tumour – for age specific symptoms</p> <ul style="list-style-type: none"> ■ persistent/recurrent headache ■ persistent/recurrent vomiting ■ behaviour change, confusion, or lethargy ■ developmental regression or reduced school performance ■ seizures ■ loss of balance ■ papilloedema ■ head tilt, wry neck, or stiff neck ■ focal neurological deficit ■ abnormal eye movements ■ new squint ■ blurred or loss of vision ■ co-ordination or walking issues ■ increasing head circumference crossing the centiles ■ delayed or arrested puberty 	
Neuroblastoma	<ul style="list-style-type: none"> ■ abdominal mass, ■ unexplained neurological symptoms ■ hypertension ■ periorbital bruising ■ Horner's syndrome 	<ul style="list-style-type: none"> ■ skin lesions in infants ('blueberry muffin' appearance) ■ systemic symptoms (bone pain, pallor, bruising, fever, fatigue, irritability, lymphadenopathy)

Cancer type	Associated symptoms	
Renal tumours (nephroblastoma)	<ul style="list-style-type: none"> ■ palpable abdominal mass (can be painful), ■ haematuria (can be visible or persistent non-visible) 	<ul style="list-style-type: none"> ■ hypertension ■ associated fever
Soft tissue sarcoma	<ul style="list-style-type: none"> ■ soft tissue mass anywhere on the body (firm/hard, tethered, non-tender, enlarging) ■ proptosis ■ nasal or ear obstruction or discharge (persistent or recurrent, bloody/purulent) ■ urinary retention 	<ul style="list-style-type: none"> ■ scrotal swelling, vaginal discharge (blood stained) ■ back pain, lower limb pain or weakness (see good practice for malignant spinal cord compression) ■ can be associated with enlarged draining lymph nodes and weight loss
Bone tumours	<ul style="list-style-type: none"> ■ persistent localised bone pain (pain can be at rest) ■ bony mass or swelling ■ spontaneous or minor trauma fracture 	<ul style="list-style-type: none"> ■ back pain including a painful scoliosis ■ unexplained limp ■ can cause malaise and fever
Liver tumours	<ul style="list-style-type: none"> ■ hepatomegaly ■ abdominal pain 	<ul style="list-style-type: none"> ■ systemic upset (fever, fatigue, loss of appetite) ■ rarely jaundice
Retinoblastoma	<ul style="list-style-type: none"> ■ white or absent pupillary red reflex 	<ul style="list-style-type: none"> ■ new onset squint
Germ cell tumours	<ul style="list-style-type: none"> ■ scrotal swelling (testis) ■ abdominal mass (ovary) ■ neurological symptoms (CNS involvement) 	<ul style="list-style-type: none"> ■ can be associated with gynaecomastia, virilisation, and/or precocious puberty
Germ cell tumours (continued)	<p>Germ cell tumours can present with a mediastinal mass (see good practice) causing:</p> <ul style="list-style-type: none"> ■ airway compromise – wheeze, stridor, orthopnoea; ■ superior vena cava obstruction – breathing difficulty with facial swelling 	
Langerhans cell histiocytosis	<ul style="list-style-type: none"> ■ Bone (pain, swelling, multiple lesions on X-ray and can be lytic) ■ posterior pituitary features (polydipsia/polyuria) 	<ul style="list-style-type: none"> ■ skin (rash, which is unusual, fluctuant, persistent, can look like eczema unresponsive to treatment, severe cradle cap, persistent/recurrent otitis externa, anal excoriation)
Haemophagocytic lymphohistiocytosis	<ul style="list-style-type: none"> ■ systemic upset ■ fever ■ splenomegaly 	<ul style="list-style-type: none"> ■ pallor ■ fatigue ■ bruising and/or bleeding