



## Neck instability in Down syndrome

Children with Down syndrome have very flexible joints.

They may have more motion than usual between the bones in the spine.

If there is too much motion, the bones of the spine can press on and damage the spinal cord, causing paralysis or death.

### How can you help avoid spinal cord damage?

Avoid excessive neck motions: bending, twisting, extending  
Do not put pressure on child's head:



### How can you tell if the spinal cord is being damaged?

Changes in the way the child moves: more clumsy, different leg movements

Tight, stiff positioning of arms or legs

Signs of neck pain: not moving neck as much, holding neck to the side

Loss of control over bowel and bladder

### What should you do if you see these signs of spinal cord injury?

Contact a doctor immediately. If these symptoms are caught early, a doctor can do a surgery to reduce the excess motion at this joint and limit the pressure on the spinal cord.

## Abnormal Movement in Down syndrome

These **abnormal movement** patterns are common for children with Down syndrome. Encourage the suggested activities:

Movement Pattern	Suggested Activities
arching head and back to move when lying on back	alter placement of toys and yourself to encourage flexion
propping on stiff, locked elbows while lying on stomach	provide support to give slight bend at elbows
leaning forward in sitting with head arched back	promote upright sitting, alter toy placement
sitting with legs wide apart with stiff, locked knees	reposition legs to have slight bend in knees
moving in and out of sitting by doing a split	promote rotation of trunk to the side for this transition
standing with legs apart, feet turned out, and knees stiff	promote leg strength, reposition feet, provide support at knees
scooting on bottom in sitting for mobility	promote mobility on hands and knees

