Sleep is necessary for all of us. It refreshes and restores us and we function better, both mentally and physically, if we sleep well.

Having difficult nights is not easy for the child, the child who does not have good, restorative sleep at night is at a disadvantage.

Concentration may be affected and behaviour difficult to manage. It is easy to presume that all of these problems are caused by the CP, and certainly to some extent this may be true, but a sleep deprived child with CP will have even greater struggles with the condition and the ability to function.

The importance of sleep in a child with CP cannot be overestimated.

Throughout the night we all pass through light sleep and down into deep sleep and then back up to light sleep again. The brain regularly moves from one stage to another in well-organized cycles, each lasting between 50 and 90 minutes.

As the brain moves up into light sleep, several times each night, it becomes partially awake. These small arousals are very short and most of us quietly drift back down to a level of deeper sleep.

It can be reassuring to realize that it is the very nature of sleep itself that causes the momentary wakefulness and does not always signify that a child who wakes frequently is in pain or suffering some other upset. Of course the possibility of the child being unwell or uncomfortable must always be investigated and, if necessary, dealt with.

Sleep-talking, sleep-walking and tooth-grinding

Such events can occur in any child, usually during the first half of the night. It is therefore important that all measures are taken to ensure the sleep-walking child is safe and that any potentially dangerous objects are locked away. The child just needs to be guided calmly back to bed and not woken. There will be no memory of the event next morning, as the child was asleep while it was happening. Talking in one's sleep and tooth-grinding often pass unnoticed and are of no great significance.

Nightmares

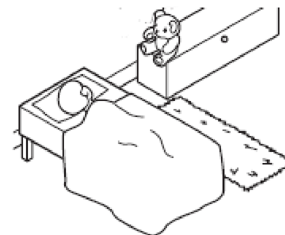
Children may cry out at night and the carers of a child with CP will want to ensure that it is not physical discomfort that is causing distress. Nightmares are unpleasant dreams that we all experience. They usually happen well on into the night or early in the morning.
If the child is able to talk, the child will describe them, and be fearful of returning to sleep. The child should be kept in bed, quietly and briefly reassured, and encouraged to settle back to sleep.

Night/sleep terrors

These are common events in children under 7 years old, more frequent when the child is overtired. Typically, during the first part of the night, the child lets out a scream and will be found sitting up in bed, or if unable to sit, lying down with eyes wide open, sweating and apparently frightened. The child will push the career away and resist cuddling, generally appearing incoherent. The child is totally unaware of what is happening.

Management of night/ sleep terrors

Stay calmly near to the child ensuring that the child does not hurt himself. The terrors rarely last longer than 20 minutes and then the child returns to quiet sleep.



Rolling, rocking and head-banging at sleep onset and during the night

Children with some sort of damage to parts of the brain seem a little more likely to exhibit this type of movement before bed, without showing signs of distress and then falling asleep.
A child with CP may have limited movement, so it can be difficult to be sure what is going on. They can also occur during the night after a brief awakening. Intervening to try to stop this behavior often makes the situation worse, so padding the crib or headboard and, if necessary, the wall next to the bed helps prevent bruising. Ensuring that the child is safe and cannot be seriously harmed is critical.

Conditions associated with cerebral palsy which can affect a child's sleep:

- Breathing disturbances
- Seizures
- Problems connected with the digestive system
- Difficulties remaining comfortable at night

The cot or bed

Cots and beds need to be big enough and have firm, supportive mattresses. Safety is also an issue, particularly if the child makes large involuntary movements. Foam padding can be attached to cot sides but bed guards and padded headboards are preferable.
The height of the bed or cot may need to be adjusted to enable carers to lift and manoeuvre the child comfortably and safely without strain to themselves.

Bed clothes

Carers will be aware that the child may be unable to throw off or pull on bed covers and sleep suits may help on cold nights. Light-weight, warm coverings that will not press heavily on limbs or trunk are the best.

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Adapted from: Finnie's Handling the Young Child with Cerebral Palsy at Home. Eva Bower. Illustrated by Annabel Milne. *Fourth Edition. British Library Cataloguing in Publication Data*. 2009

Management of sleeping positions

Unless for any medical reason the child needs to be put down to sleep in a certain way, it is often best to encourage sleeping on the side until the child can roll over independently and choose the most comfortable position. This may not be possible with a child with CP either because it is too difficult to flex the child sufficiently to place the child on the side and once there the child may immediately extend, pushing on to the back, or because, lacking stability, the child just flops on to the back.

It is not suggested that you put the child to sleep in a position which, although good for the child, is uncomfortable, but, rather, that having observed the preferred sleeping position, you may then use supports or aids in order to reinforce the good aspects of the position and discourage the bad aspects.

Body position at night

Good, comfortable positioning and postural support to keep the body properly aligned at night should be considered. A child with CP is likely to have abnormal muscle tone and may tend to lie in unusual positions. Legs may flop outwards or to one side, and the joints, bones and muscles may become fixed in abnormal positions. The vital internal organs may also become adversely affected.

Some of the more common positions that a child with CP can adopt and remain in, while lying in bed, are:

1. Holding the head to one side so that it is at an angle to the trunk.
2. Holding the hips and knees so that they turn inwards **(Image 1)**, outwards **(Image 2)**, or both to one side at an angle to the trunk **(Image 3)**.
3. Holding the whole body in an asymmetrical position or flexed forwards or extended backwards.

Image 1
Lying with hips and knees turned inwards.

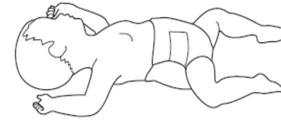

Image 2
Lying with hips and knees turned outwards.

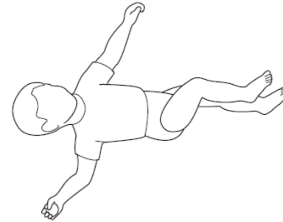

Image 3
Lying with hips and knees both turned to one side at an angle to the trunk.

The child is not fully able to control the way the body positions itself and adopted asymmetrical postures. It is therefore helpful if the child is encouraged to lie in as symmetrical a position as is comfortable, with the head and limbs supported and positioned as near to normal as is reasonable for the condition. **Image 4 and 5** show a child lying in corrected side-lying positions using equipment.

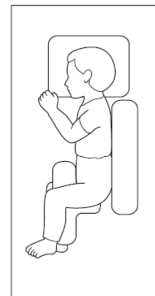

Image 4
Corrected side-lying position using fireproof foam rolls and pillows.

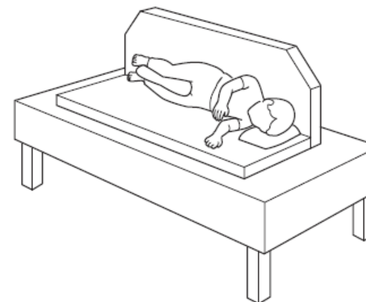

Image 5
Corrected side-lying position using a sidelying board.

Whatever position the child sleeps in, the child is likely to remain in it for long periods and may become stiff. If comfortable, warm and relaxed, the child is less likely to require carers attention during the night.

Severe sight and hearing problems

If a child's sight is so seriously affected that the child cannot distinguish light and dark, then the body clock may be affected. Regular bedtime routines, clear verbal messages and clothes plus soft toys kept just for bed all help the child realize it is sleep time.

The severely deaf child who wears hearing aids during the day can feel isolated at night without them. Such a child cannot pick up the normal household sounds and feel reassured that he or she is not alone. Again, regular routines, familiar bedtime environments, a small night light and soft bedtime toys kept only for sleep time use can all help the child to know that it is night.

Daytime naps

The toddler with CP needs short naps to be able to get through the day, like any other toddler. Most children outgrow these naps around 3–4 years.
The timing and the length of the nap can influence bedtime settling. Too long or too late a nap may mean that the child is not ready for bed by 7 or 8 p.m., but making the child go without a daytime nap often means that the overtired child is unable to relax and 'let go ' at bedtime.

Optimizing the chance of a good night's sleep for a child with cerebral palsy

To achieve comfortable tiredness the child's daytime activities need to be considered. The child needs to be able to explore, to be stimulated and to interact with loving people. Everything that can be done to enable the child to move, stretch, reach, sit up and play needs to be encouraged. Good postural management may enable the child to play and do more and so use up energy, as well as giving the child a real sense of achievement.

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