

## **Sleep difficulties in children/ Young People and modern electronic/digital devices.**

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### **PARENT/ CARER SLEEP QUESTIONNAIRE AND ADVICE.**

Dear Parent/Carer,

There are several reasons for sleep difficulties in children and young people. Playing or using electronic devices e.g. computers before bedtime could be one of the reasons why your child or teenager may be struggling with falling asleep at bedtime, especially if they have underlying neurodevelopment difficulties like Attention Deficit Hyperactivity Disorder (ADHD), Autism Spectrum Disorders (ASD) or learning disabilities.

Please answer the attached sleep questionnaire with your child or teenager (if appropriate). You may discuss the completed questionnaire with a GP, School Nurse, Health Visitor or teacher.

Strategies for improving your child's sleep difficulties are included in this information.

## **The sleep cycle and modern electronic devices**

Melatonin is a naturally occurring hormone produced in the brain. Melatonin plays a very important role by regulating the sleep- wake cycle and plays a major role in starting the sleep cycle.

Melatonin has been called the 'hormone of darkness' as its production in the brain is permitted by darkness and inhibited by light to the part of the eye called the retina. Melatonin is suppressed by natural and some artificial lighting.

Modern digital television and bed side lamps used shortly before bedtime may inhibit natural melatonin production and cause further sleep onset difficulties for children especially if they have neurodevelopment or learning disorders.

Modern electronic gadgets have light emitting diodes or LEDs. These are rich in short wavelength blue light similar to that found in natural day light. Artificial light from smart phones, computers, and electronic game devices used very close to the eyes can suppress natural melatonin production resulting in a 'tug of war' between melatonin wanting to start the sleep cycle and artificial light preventing thus disrupting the natural sleep rhythm. A child or young person with insufficient sleep will be tired during the day and may find it difficult focussing at school. Some children may show challenging or 'hyperactive' behaviours simulating conditions like ADHD. It is important for parents to inform teachers if their child is having sleep difficulties at night.

The questions below can help you decide whether your child struggles with sleeping at bedtime.

**PARENT/CARER SLEEP QUESTIONNAIRE**

Does your child take a long time to fall asleep at bedtime?

Yes  No

Does your child wake up several times in the night?

Yes  No

Does your child snore at night?

Yes  No

Does your child frequently complain of pain in his/her legs at night?

Yes  No

Does your child struggle with waking up in the mornings?

Yes  No

Does your child take naps during the day (school age children)

Yes  No

Has school reported that your child frequently sleeps in class and seems tired most mornings?

Yes  No

Has school reported that your child has become overactive and disruptive in class lately?

Yes  No

Has school reported your child is inattentive in class lately?

Yes  No

Is your child on any medication?

Yes  No

If you answered YES, please tick medication your child is on:

Melatonin

ADHD medication

Other medication.....(ps. State)

## About Melatonin

Who prescribes Melatonin for your child?

GP

Community Paediatrician

CAMHS

Other.....(ps. state)

Approximately how long has your child been on melatonin?

.....(ps. state)

Has your child had a break from melatonin since it was prescribed?

Yes

No

Can't remember

Has melatonin helped with your child's sleep?

Yes

No

Don't know

## Discussing your child's sleep difficulties with Professional

Have you ever discussed your child's sleep difficulties with a Professional?

Yes

No

Can't remember

Please tick Professional you had discussion with (if applicable)

Health visitor  School nurse  GP  CAMHS  School

Community Paediatrician  ADHD Nurse  Family support worker

Other

Please state.....

Was the sleep advice given successful in helping with your child's sleep?

Very successful  Some what successful  Not at all successful

## Impact of your child's sleep difficulties

On a scale of 0-2, how would you rate the impact of your child's sleep difficulties on you and your immediate family?

Please circle your rating:

No impact            0

Some impact        1

A lot of impact     2

Unable to comment

Any comments?

On a scale of 0-2, how would you rate the impact of your child's sleep difficulties on their schooling?

Please circle your rating:

No impact            0

Some impact        1

A lot of impact     2

Unable to comment

Have you had a discussion with school or the school nurse about your child's sleep difficulties?

Yes

No

Can't remember

You may attach any recent feedback from school about discussion

Comments

## Section 2

### Your sleep hygiene checklist

Please tick the following statements:

**My child's room is normally dark and quiet at bedtime**

Always  frequently  sometimes  never

**My child keeps their cell phone with them at bedtime**

Always  frequently  sometimes  never

**My child keeps their computer (e.g. laptops, I Pad etc.) with them at bedtime**

Always  frequently  sometimes  never

**My child keeps their electronic games (e.g. Xbox, play station, iPods) with them at bedtime**

Always  frequently  sometimes  never

**My child has a TV in their bedroom**

Always  frequently  sometimes  never

**My child has a bedside lamp by their bed**

Always  frequently  sometimes  never

## **Child/Young Person's pre bedtime activities**

**My child drinks stimulating drinks  $\frac{1}{2}$  hour- 2 hours before their bedtime**

Always  frequently  sometimes  never

**My child does after school physical activities e.g. sports clubs 1/2hour-2 hours before their bedtime**

Always  frequently  sometimes  never

**My child plays with their computer (IPADS, kindles, laptops etc)  $\frac{1}{2}$  hour-2 hours before their bedtime**

Always  frequently  sometimes  never

**10. My child watches TV  $\frac{1}{2}$  hour- 2 hours before their bedtime**

Always  frequently  sometimes  never

**My child reads with a bedside lamp  $\frac{1}{2}$  hour- 2 hours before their bedtime**

Always  frequently  sometimes  never

**My child reads stories on an electronic device e.g. Kindle  $\frac{1}{2}$ - 2 hours before their bedtime**

Always  frequently  sometimes  never

**My child plays with electronic games/gadgets (e.g. Xbox, Nintendo wii, play station  $\frac{1}{2}$  hour-1 hour before their bedtime**

Always  frequently  sometimes  never

Foods / alternative therapies that may promote sleep

**Does your child ever complain of feeling hungry at night?**

Always  frequently  sometimes  never

**There are foods, drinks and natural remedies that can help your child to sleep have you ever tried the following before your child's bedtime? (Please circle)**

**a) Dairy products: e.g. warm milk**

- b) Bananas
- c) Herbal teas e.g. chamomile tea
- d) Carbohydrate rich foods: Oats/ Oatcakes and Cereal
- e) Herbal remedies for sleep (e.g. Nytol)
- f) Relaxation methods (please state)
- g) Essential oils e.g. Lavender

**Please refer to questions in Section 2 (Child/Young Person's pre-bedtime activities)**

**Ticked mostly 'Always/Frequently'**

- Refer to sleep advice- If strategies/advice is not successful after 4 weeks, complete a 3 week sleep diary and discuss difficulties with your GP, Health Professional, Paediatrician or School

**Ticked mostly 'Sometimes'**

-Refer to sleep advice/strategies.  
- If strategies/advice is not successful after 4 weeks, complete a 3 week sleep diary and discuss sleep difficulties with your GP, Health Professional, Paediatrician or School.

**Ticked mostly 'Never'**

-Refer to sleep advice/strategies  
-Discuss with your GP, health professional or paediatrician if your child is struggling with falling asleep after completing a 3 week sleep diary.

## Accessing sleep hygiene support/advice in your area

On a scale of 0-3, how would you rate your overall satisfaction regarding accessing sleep advice and support from professionals for your child's sleep difficulties in the community?

Please circle your rating:

Very satisfied 3

Fairly satisfied 2

Dissatisfied 1

Extremely dissatisfied 0

No comment

Do you feel a sleep service in your area would be useful?

Yes

No

Don't know

Where would you like to access a sleep service if available in your area?

GP

Health Visitor

School Nurse

School

Pre-school /Nursery

Play groups/Mother and toddler groups

Support groups e.g. (Family lives, Angels ADVANCE etc)

Other Voluntary Organizations

ADHD Specialist Nurse

Paediatrician

Mental Health Services (e.g. CAMHS, Step 2)

All of the above

None of the above

**How do you want to access more information about good sleep hygiene?**

Sleep hygiene talk by experienced professionals

Sleep hygiene leaflets and booklets

Sleep hygiene videos

Sleep hygiene audios

Sleep hygiene websites/internet

Other..... (Ps state)

All of the above

None of the above

**Any other comments?**

## **Sleep Advice/Strategies**

### **Tips to improve your child's sleep onset difficulties**

Ensure your child's room is dark or dimly lit by using a night light if they prefer sleeping with lights at night.

Dark curtains or window blinds on windows will block out natural day light especially in the summer months.

It is a good idea to keep TVs, computers and other electronic game devices out of your child's bedroom.

If your child insists they need their TV on, you can reduce the brightness/contrast settings of the television and avoid placing the TV too close to the bed.

All electronic games, television, computers and cell phones should be switched off about half an hour to an hour before your child's bedtime.

Young people should be encouraged to switch off all smart cell phones to avoid accessing the internet and social network sites.

Reading can be a good bedtime activity, but a bedside lamp placed too close to the bed may prevent sleep. It is advisable for any reading to stop at least half an hour before bedtime.

Make sure your child is not hungry before bedtime especially if they're on medication for ADHD. Warm milk, a bowl of cereal and other healthy snacks may be used as a top up before bed time.

Avoid foods that can stimulate your child e.g. caffeine containing drinks e.g. tea, coffee, sports drinks etc

If your child does regular physical sports late in the evenings, they may need some time to calm down before going to sleep. A pre- bedtime healthy snack and warm milk if they're hungry after exercising or even a shower may be helpful.

**Sleep diary (YOU CAN MAKE YOUR OWN SLEEP DIARY OR REQUEST ONE FROM YOUR GP OR HEALTH PROFESSIONAL)**

**References:**

1. Electronic media exposure may have alerting effects possibly due to suppression of melatonin from bright lights emanating from screens, as well as the exciting and engaging component.
2. Van den Bulck J. The effects on media on sleep. *Adolesc Med State Art Rev*, 2010;21 (3): 418- 429, vii.
3. Human circadian rhythms is sensitive to 40 lx of shortwave length (blue) at the cornea but not to long wave length (red) as measured by nocturnal melatonin suppression. Blue light induced melatonin suppression is limited tonight time when melatonin levels are high.
4. M.G. Figuero, M.S. Rea, 'The effects of red and blue lights on circadian variations in cortisol, amylase and melatonin', *International Journal of Endocrinology*, Volume 2010, Article ID 829351, 9 pages doi: 10.1155/2010/829351

**Books**

5. My child won't sleep. Richman D et al, 1984.
6. Solving your child's sleep problems. Feber 1986.
7. Solving children's sleep problems. A step by step guide for parents by Dr Lyn Quinn 1997.

**Website**

Sleep Scotland UK  
[www.sleepscotland.org.uk](http://www.sleepscotland.org.uk)