

Indian Academy of Pediatrics (IAP)



## GUIDELINES FOR PARENTS

# Guidelines for Normal Sleep and Physical Activity

*Convener:* **Anagha Jayakar**

*Members:* **Jayakumar C Panicker,  
K Venkata Ramana Murty,  
Ujwalla Sudhir Gavali**

*Reviewer:* **Ajay Gaur**

*Sketches:* **Anand Naregal, Shantanu Kiritkar**



### 10 FAQs on GUIDELINES FOR NORMAL SLEEP AND PHYSICAL ACTIVITY

1. Why is sleep important for my child? What are sleep stages?
2. How much sleep should children get at different ages? What happens if my child does not get enough sleep?
3. Could you kindly give me some tips to help my child sleep better?
4. What is safe sleeping and why is it important?
5. What are behavioral sleep problems? What strategies can I use to prevent or manage them?
6. At times, my child screams at night, or walks or talks in his sleep. Should I be worried?
7. What is sedentary behavior? How much sedentary behavior is OK for children?
8. What are the benefits of physical activity to my child's health?
9. What is the recommended time and types of physical activities for my child according to age?
10. How can children with autism, cerebral palsy, or chronic diseases, such as diabetes, participate in physical activities?

**Under the Auspices of the IAP Action Plan 2020–2021**

**Piyush Gupta**  
IAP President 2021

**Bakul Parekh**  
IAP President 2020

**GV Basavaraja**  
IAP HSG 2020–2021

**Deepak Ugra**  
National Co-ordinator

© Indian Academy of Pediatrics

## IAP Parent Guideline Committee

**Chairpersons:** Piyush Gupta, Bakul Parekh

**IAP Co-ordinators:** GV Basavaraja, Harish Kumar Pemde, Purna Kurkure

### Core Group

*National Co-ordinator:* **Deepak Ugra**

*Member Secretaries:* **Upendra Kinjawadekar, Samir Dalwai**

*Members:* **Apurba Ghosh, CP Bansal, Santosh Soans, Somashekhar Nimbalkar, S Sitaraman**

# 2

## Guidelines for Normal Sleep and Physical Activity

### Q1

#### Why is sleep important for my child? What are sleep stages?

Sleep is an essential, active, and dynamic physiologic process that has a critical impact on health, development, and daytime function. During sleep, our body conserves energy, restores its normal processes, and promotes physical growth and development. Sleep improves mood and is important for optimal functioning.

The two stages of sleep include rapid eye movement (REM) sleep and non-REM sleep, and these alternate multiple times through the night with increasingly longer and deeper REM periods occurring toward morning. Cultural and genetic factors are responsible for variations in sleep behavior but not in sleep requirements.

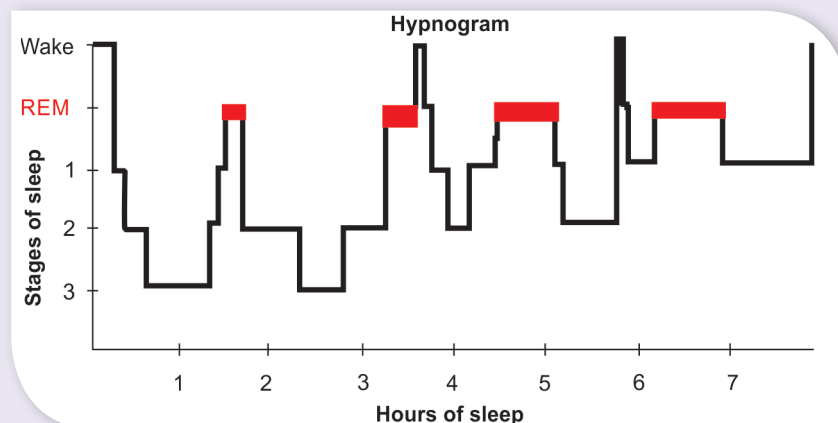


Figure shows the sleep cycles through the night.

**Q2**

**How much sleep should children get at different ages?  
What happens if my child does not get enough sleep?**

As children grow, sleep needs change considerably. Newborns have a fragmented awake–sleep pattern and require the greatest total sleep time. Sleep times gradually decrease from infancy to adolescent. Adequate sleep duration is necessary for optimal daily function and good health.

Age	Minimum sleep* (in hours)	Recommended sleep *range	Usual number of naps**
0–3 months	11	14–17	3
4–11 months	10	12–15	2
1–2 years	9	11–14	1
3–5 years	8	10–13	50% nil
6–13 years	7	9–11	40% once
14–17 years	7	8–10	

\* Sleep Foundation

\*\* American Academy of Pediatrics

Insufficient sleep leads to poor health. Adverse effects include day-time sleepiness, irritability, behavioral problems, learning difficulties, poor academic performances, and increased likelihood traffic accidents in young people.



### Q3

#### Could you kindly give me some tips to help my child sleep better?

Establishing good sleep hygiene means developing habits that help children to get good sleep.

Behavioral sleep problems are caused by continuing and reinforcing bad habits over years.

- *Obeying the body clock:* Sleeping at the same time every night helps your child's body remember to feel sleepy. During holidays, the difference in sleep time should not be more than an hour.
- *Improving the sleep environment:* If possible, have a separate room/area for sleep, a quiet environment, with dimmed lighting and a comfortable room temperature to improve the child's ability to sleep well. The child's bed must be comfortable and feel safe and away from TV/computers/digital devices.

#### Establishing a Sleep Routine

Set-up the same routine to allow the child to get into a habit. This could include:

- Avoiding TV/computer/video games 1 hour before sleep time
- Read/tell a bed-time story to the child
- If you cannot control noise, try using a pair of earplugs
- Taking a warm bath
- Avoiding chocolate, caffeinated, or sugary drinks at bedtime and replacing them with warm milk.

#### Promoting Sleep Settling in Babies

Babies need to settle to sleep by themselves and parents can help.

- *0–6 months:* The baby can be held in arms until they fall asleep. When putting down in cot, caregiver may use a soothing voice or gentle stroking.
- Second option is to place baby in cot when calm and drowsy and gently stroke till they fall asleep comforting them with soft sounds.
- *6 months to 2 years: Controlled comforting—* mother leaves the baby before he is asleep and waits outside the room. She comes back if the baby cries after a brief time (2–4 minutes) and talks to or pats child without picking him/her up and again leaves as soon as child is quiet and before he/she falls asleep.



## Q4

### What is safe sleeping and why is it important?

**Sudden unexplained death in infancy (SUDI) is the term used when an infant dies unexpectedly and an obvious cause is not identified. Research has shown that chances of SUDI are reduced, if safe sleeping practices are used for infants.**

#### Safe Sleeping Practices

- All babies should be put to sleep on their backs but let them find their own sleep position, if they roll over during the night. Back to sleep is the safest position for healthy babies.
- Promoting breastfeeding reduces the risk of SUDI by more than half. Regardless of whether your baby is breastfed or not, please follow safe-sleeping practices.
- Room sharing but not bed sharing with parents or siblings for first 6–12 months
- Use a separate sleep space (cot) with a firm surface, tight-fitting bedsheet, and no soft pillows or stuffed toys.
- Swaddling the baby is fine. Keep baby's head and face uncovered.
- Discourage smoking as exposure to second-hand smoke harms babies. Smoking is linked to SUDI even when parents smoke away from their infants.

## Q5

### What are behavioral sleep problems? What strategies can I use to prevent or manage them?

#### Common Types

Difficulty getting to sleep or waking multiple times at night:

- *Sleep-onset association disorder*: Falls asleep readily, if person (parent) or object (TV) is there. In the absence of the parent or object, child struggles to get to sleep. Typically, wakes 1–4 times per night, again wanting parent there or TV turned back on in order to resettle to sleep
- *Limit-setting disorder*: Child comes in and out of the room multiple times before falling asleep. Multiple requests to parents (“I want a drink, I want to go to the toilet, I want to talk to you, I am scared...”) to avoid/delay going to bed. Parents find it difficult to set limits around these behaviors, known as “curtain calls”.

#### Management Strategies

For sleep-onset association disorder, you can use either of two methods described here:

1. *Checking method*: You settle your child, leave the room for 1–2 minutes, and promise to return after this time. Gradually, increase the time spent outside the child's room. Eventually, you return to find that your child has fallen asleep.
2. *Camping out method*: Place a bed or chair next to the child's bed. For the first few nights, you pat child to sleep. After a few nights, sit next to bed/cot but do not touch the child. Gradually, move the chair/bed away from child over a period of 7–10 nights. When the child wakes overnight, you must return to the bedroom and sit on the chair/bed until the child falls asleep again.

*For limit-setting disorder*: Limit child to 1–2 requests at the start of the night. The use of the “bed-time pass” method can help this. The child gets one pass to use during the night and after this is used up, he/she needs to stay in the room and go to sleep.

Q6

**At times, my child screams at night, or walks or talks in his sleep. Should I be worried?**

- These behaviors are known as parasomnias or disruptive sleep disorders. Parasomnias occur when child is falling asleep, sleeping, or waking up. Although the behaviors may appear complex and purposeful to others, the child remains asleep and often has no memory of them. Most children outgrow them and only reassurance is needed. Children who sleepwalk may also have night terrors or sleepwalk.
- *Night terrors*: These usually occur 2 or 3 hours after a child falls asleep, when sleep moves from the deepest stage of sleep to lighter REM sleep. They may be dramatic but child does not remember the episode and after a few minutes, child calms down and returns to sleep.
- *Nightmares*: These are bad dreams, which usually occur later in the night during the rapid eye movement (REM) sleep stage. They wake the child who may remember content of dream.



Day-time stressful events, watching horror movies, or reading books that maybe scary can turn dreams into nightmares. Children need reassurance that nightmares are not real and cannot harm them. Using a night light, avoiding scary movies or talking to someone about it will help.

- *Sleepwalking or somnambulism*: These episodes occur during deep sleep (NREM stage) often in the initial part of the night. Sleepwalkers may keep eyes open, appear clumsy, and are unresponsive to environment. It can be unsafe, as child may calmly go outside through an open door without being aware.
- *Sleep-talking or somniloquy* is common. It may be seen in children with fever, sleep deprivation, and stress and also in adolescents who have substance abuse problems. This will subside on its own with good sleep hygiene.

**Q7**

**What is sedentary behavior?  
How much sedentary behavior  
is OK for children?**

Sedentary behavior includes sitting and lying down but not sleeping. Very little energy is spent and children may be sedentary at school or home. Quality sedentary behaviors, such as storytelling, reading, and solving puzzles, support healthier growth and development.

- *<2 years of age*: Child should not be using electronic media.
- *2–5 years*: Sitting and watching TV/iPad to be limited <1 hour/day.
- *<5 years*: Child to be active and not sedentary for >1 hour at a time unless asleep.
- *5–17 years*: Minimize sedentary time. Avoid long periods of sitting. Use of electronic items, iPad, TV, computers, etc. for entertainment to be limited to a maximum of 2 hours a day.

**Q8**

**What are the benefits of  
physical activity to my child's  
health?**

- It helps children to have a fit and healthy life with good physical and mental well-being.
- Children will develop healthy heart and lungs, bones, muscles, and joints.
- Children will develop muscle strength, coordination, and control.
- A healthy body weight is maintained.
- Body will become more flexible and their balance and posture will improve.
- Brain will develop vital connections, leading to improved concentration and thinking skills.
- It reduces chance of getting chronic diseases such as type 2 diabetes, hypertension, and obesity.
- Exercise enhances development of motor, cognitive, and social skills and sleep is better.
- Physical activities improve cognitive functioning, memory, and academic achievements.
- The psychological advantages include improved mood, better outlook, positive self-esteem, team cooperation, and a good life. It helps overcome depression, develop discipline as well as good social and emotional well-being.



Q9

**What is the recommended time and types of physical activities for my child according to age?**

Children need to be as active as possible all day in a safe and supervised environment. All moments of physical activity count—the more the better.

**Birth to 1 year:** At least supervised 30 minutes of tummy time when awake

*Activities:* Reaching, grasping, pulling, pushing, moving their head, body, and limbs, and crawling

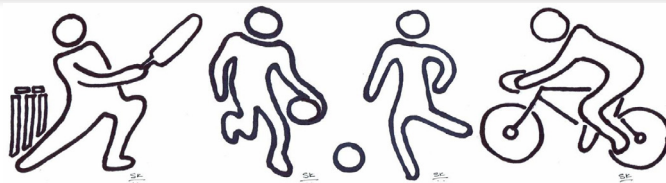
**1–2 years:** At least 3 hours (180 minutes)

**3–5 years:** At least 3 hours (180 minutes) with at least 60 minutes of moderate-to-vigorous physical activity

- Light activity includes standing up, moving around, rolling, and playing
- Moderate-to-vigorous activity includes skipping, hopping, dancing, running, jumping, climbing a frame, chasing games and ball games in group play, and swimming.

**5–18 years:** 3 hours of structured physical activity

- Children can participate in aerobic exercises and exercises to strengthen the muscles and bones
- At least 1 hour of moderate intensity physical activity is recommended.
- Includes muscle-strengthening exercise/physical activity at least 3 days a week
- Moderate-intensity activities include cycling, walking, skate-boarding and games, and activities in the playground
- Activities to strengthen muscle and bones—may be aerobic and nonaerobic
- These include but are not restricted to walking, running, skipping, galloping, crawling, sliding, rolling, rotating, throwing, catching, bouncing, tapping, kicking, curling, stretching, twisting, turning, spinning, swinging, balancing, counter-balancing, swinging on playground equipment bars, sit-ups, press-ups, basketball, dance, football, rugby, tennis, gymnastics, rock climbing, etc.



**Q10**

**How can children with autism, cerebral palsy, or chronic diseases, such as diabetes, participate in physical activities?**

There is no specific physical activity for different problems. Find out what the child enjoys and encourage participation as able in physical activities of their choice. This positive therapeutic intervention enables children to be happier, healthier, and they become more resilient.

**Attention Deficit Hyperactivity Disorder (ADHD)**

Physical activity helps to improve the concentration of children with ADHD. Children could be allowed to have time in-between classes to move. Gradually with improvement in concentration, complex exercises such as martial arts (karate and judo), yoga, dancing, gymnastics, weight training, and rock climbing can be practiced. These improve balance, timing, memory, and concentration.

**Autism Spectrum Disorder**

It is important to identify the child's interest and encourage participation in preferred activities so that child has fun and learns to play with children of similar age. Exercises such as bear crawls, medicine ball slams, star jumps, arm circles, and mirror exercises have been found to be useful.

**Cerebral Palsy**

Encourage replacing sedentary behavior with light physical activity and as much moderate-to-vigorous exercise as possible. Children should have fun and participate with family and friends, e.g., wheelchair sports, adaptive bikes, hydrotherapy, or swimming. Those with severe disability can try transitioning from seated position to standing using standing frames. They can gain functional improvements with training and encouragement.

**Diabetes Mellitus**

Exercise makes insulin work better in the body and allows children to keep their blood sugars in a healthier range. Exercise burns calories and builds muscle, which allows body to burn more calories. For type 1 diabetes, it is important to modify the insulin regimen and carbohydrate intake to prevent exercise-related hypoglycemia (low blood sugar levels). This is as per advice of your doctor. For type 2 diabetes, there should be same physical activity goals as for all children.

It is difficult to describe all conditions here, where sleep is affected. Please consult your pediatrician for other situations.



GOOD SLEEP IS GOD'S GIFT TO US, TO OUR BODY..... DO NOT WASTE IT...

### KEY POINTS TO REMEMBER

- Sleep, sedentary behavior, and physical activity need to be well integrated for health and wellbeing of children.
- Good sleep hygiene, sticking to the sleep schedule of same bed-time and wake-up time, regular bed-time routine, and maintaining a sleep environment (no light and noise) are critical to obtain adequate quality sleep.
- Children should have fun, play and move everyday. They can try a range of structured and unstructured activities. Physical activity should be an integral part of the lifestyle of children and their families.