

Indian Academy of Pediatrics (IAP)



GUIDELINES FOR PARENTS

My Child is Not Growing Well: How to Monitor and Manage?

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10 FAQs on MY CHILD IS NOT GROWING WELL: HOW TO MONITOR AND MANAGE?

1. What is stunting? How to identify if my child is stunted?
2. In our family many are short; is there a cause for worry? Can a child grow taller than her/his parents?
3. What may be the reasons for stunting in our child?
4. When should I consult a doctor/pediatrician regarding my child's height?
5. Are there any special diets (or specific nutritional supplements) or special exercises (including stretching), which will increase the height?
6. Can we use any hormone such as growth hormone to increase the height? Does it have any side effects?
7. What is the treatment of stunting and how should my child be monitored, if she/he has stunting?
8. Are there any long-term problems associated with stunting itself?
9. Will there be any emotional problems with stunting? Should I seek any counseling?
10. Will a girl's height stop increasing after she has started having her periods or can a girl's periods/menstruation be delayed so that she continues to grow in height?

Under the Auspices of the IAP Action Plan 2020–2021

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My Child is Not Growing Well: How to Monitor and Manage?

Q1

What is stunting? How to identify if my child is stunted?

Stunting means that a child's height is less than what we would expect it to be. In practical terms, it means that the height is below the lowest acceptable limit for that age, sex, and family which can be observed on a growth chart. Height is a very variable characteristic and depends on many factors such as the age and the gender of the child, height of the parents, nutritional status, pubertal development, and/or presence of any chronic disease, and rarely some hormonal problems.

If you feel that your child's height is significantly less than that of her/his peers, e.g., she/he is one of the shortest in her/his class, or the parents/siblings are very tall but the child has an average or below average height, an objective assessment should be made by plotting the child's height on a growth chart. It is recommended to use the Indian Academy of Pediatrics (IAP) 2015 growth charts for Indian children (*annexed at the end of this chapter*).

If you feel that your child has not been growing for some time that may also be a cause of concern. This can be identified only if you have a periodic monitoring of your child's height.

Q2

In our family many are short; is there a cause for worry? Can a child grow taller than her/his parents?

A child's height depends on many factors of which one of the most important is her/his parents' height. In general, tall parents are likely to have tall children and short parents will have short children.

But, children can be shorter or taller than their parents. A pediatrician or pediatric endocrinologist can give a rough prediction of the child's height to you. IAP recommends 6-monthly monitoring of your child's height, weight, and body mass index (BMI) from 5 to 9 years of age and annually thereafter.

Shortness by itself is not a cause of worry as long as it is not associated with an underlying disease. Familial short stature can sometimes be a reflection of a heritable disorder and needs to be carefully checked for any treatable heritable disorder.

Q3

What may be the reasons for stunting in our child?

Stunting can be because of many reasons. Important causes of stunting summarized as given here:

Normal variation (These are more common):

- As already mentioned, due to *genetic factors* (both/one of the parents are short)
- *Delayed onset of puberty* also can be a cause of apparent stunting in some children. This is because their classmates of same age will have a sudden growth spurt on entering puberty. This is more common in boys and often there is a family history of late puberty. As a result, children with delayed puberty will appear to be shorter than their peers. However, in the long-run their growth will catch-up when they attain puberty.

Due to some underlying medical problems:

- Undernutrition
- Low thyroid hormones
- Celiac disease/wheat allergy
- Deficiency of growth hormone (GH)
- Any chronic diseases such as uncontrolled bronchial asthma, nephrotic syndrome, and cystic fibrosis
- Chronic intake of corticosteroids
- Girls can be short because of Turner's syndrome.

Q4

When should I consult a doctor/pediatrician regarding my child's height?

You should request your child's doctor to plot her/his height on a growth chart at every visit. This should be at every immunization visit for an infant and at least every 6 month for an older child. It will help to identify where she/he stands as compared to her/his peers. Serial monitoring will also help to track whether the child is growing over time or not. You can utilize smartphone applications such as IAP growth charts application and enter your child's current height and weight along with her/his date of birth. You can also enter the parent's height to know the likely target height. In a growth chart, there are multiple lines/curves. The curves on top and at the bottom indicate the extremes of the normal range. Anything between them is usually normal. Anything outside of the curves needs to be evaluated. If there is a significant change in your child's position on the curves, and she/he has suddenly moved up or down two of these curve lines, there may be something abnormal.

You should also consult your doctor if there is excessive weight gain or inadequate weight gain, features of puberty are seen early or are delayed.

Q5

Are there any special diets (or specific nutritional supplements) or special exercises (including stretching), which will increase the height?

A well-balanced diet consisting of macronutrients such as carbohydrates, proteins, and fats in balanced amounts along with micronutrients such as vitamins and minerals is important for optimum growth and development of the child. However, there is no specific height increasing vitamin or mineral supplements/diets. Vitamins and mineral supplements are required only if your child is deficient in that particular nutrient. Excess of vitamins will not lead to an extra increase in height. Try and concentrate on giving your child a well-balanced diet, rich in a variety of foods and avoid any junk food.

Adequate dietary protein is important as it can be deficient in certain vegan diets.

Common vitamins and mineral deficiencies in children include iron, vitamin B₁₂, folic acid, and vitamin D. If your child is deficient in any of these vitamins your doctor may prescribe them. Do not try to self-prescribe them for your child. Most of the commercially advertised health supplements contain milk base with extra sugar and vitamins, which will not increase your child's height.

Exercising is good for children and helps increasing the strength of their bones and muscles and prevents overweight and obesity. However, there are no specific height-increasing exercises.

Q6

Can we use any hormone such as growth hormone to increase the height? Does it have any side effects?

The body normally produces growth hormone (GH). If a child is deficient in GH, it can be given from outside. Only a doctor can make the diagnosis of GH deficiency after appropriate investigations. If a child does not have GH deficiency and you give GH from outside, it can have serious side effects.

Growth hormone therapy has a potential for adverse effects and should be given only under the supervision of an experienced doctor for scientifically approved indications.

Q7

What is the treatment of stunting and how should my child be monitored if she/he has stunting?

Stunting is not a diagnosis. It is only a symptom. The cause of stunting has to be established. And treatment has to be directed toward that cause. For example, if a child is stunted due to deficiency of thyroid hormones, she/he will need levothyroxine tablets. But, this will not be a universal treatment for all stunted children.

Serial monitoring of height is required for stunted children to see if they are responding to treatment or not. After starting treatment, it will usually take at least 2–3 months before you can see any increase in your child's height. Do not expect dramatic results and do not check her/his height everyday. As mentioned, there are also normal variation short stature such as delayed puberty, which requires only monitoring and emotional support to the child. You can check your child's height every 3 months, and plot it on a growth chart or use the IAP growth charts smart phone App to see, if he/she is improving.

Q8

Are there any long-term problems associated with stunting itself?

Stunting or shortness of a normal variant type may not have any physiologic consequence except some job prospects. On the other hand, the underlying cause of stunting, if not identified and remedied in time, the child may never be able to catch up completely for her/his lost height potential.

Q9

Will there be any emotional problems with stunting? Should I seek any counseling?

Adolescence is an age when children are very concerned about their appearance. Body image issues can be a cause of psychological distress among children. If you think that your child is excessively concerned about her/his height or appearance, counseling may be helpful.

The parents should keep a positive approach toward the child. If the parents are constantly showing their worry for the child's short stature, looking for novel treatments and doctor shopping for the child's height, she/he will be forced to think that something is seriously wrong with her/him. It should be remembered that there are many successful people including leading sportspersons who are short by general standards.

Q10

Will a girl's height stop increasing after she has started having her periods or can a girl's periods/ menstruation be delayed so that she continues to grow in height?

Girls have a growth spurt before the onset of their periods/menstruation. The height velocity comes down after the onset of their periods (menarche) but growth does not stop completely. Their height usually increases 1–3 inches (2.5–7.5 cm) after the onset of their periods.

Puberty and menstruation are normal physiological changes that should take place at appropriate time. As long as the timing of puberty is within normal age range, delaying puberty will not help to improve the final height and should not be done.

Useful Links and Websites

1. IAP growth charts 2015 can be downloaded from:
<https://iapindia.org/iap-growth-charts/>
2. IAP growth charts mobile application can be downloaded from:
https://play.google.com/store/apps/details?id=com.mindspacetech.iapgrowthcharts&hl=en_IN&gl=US

ANNEXURES

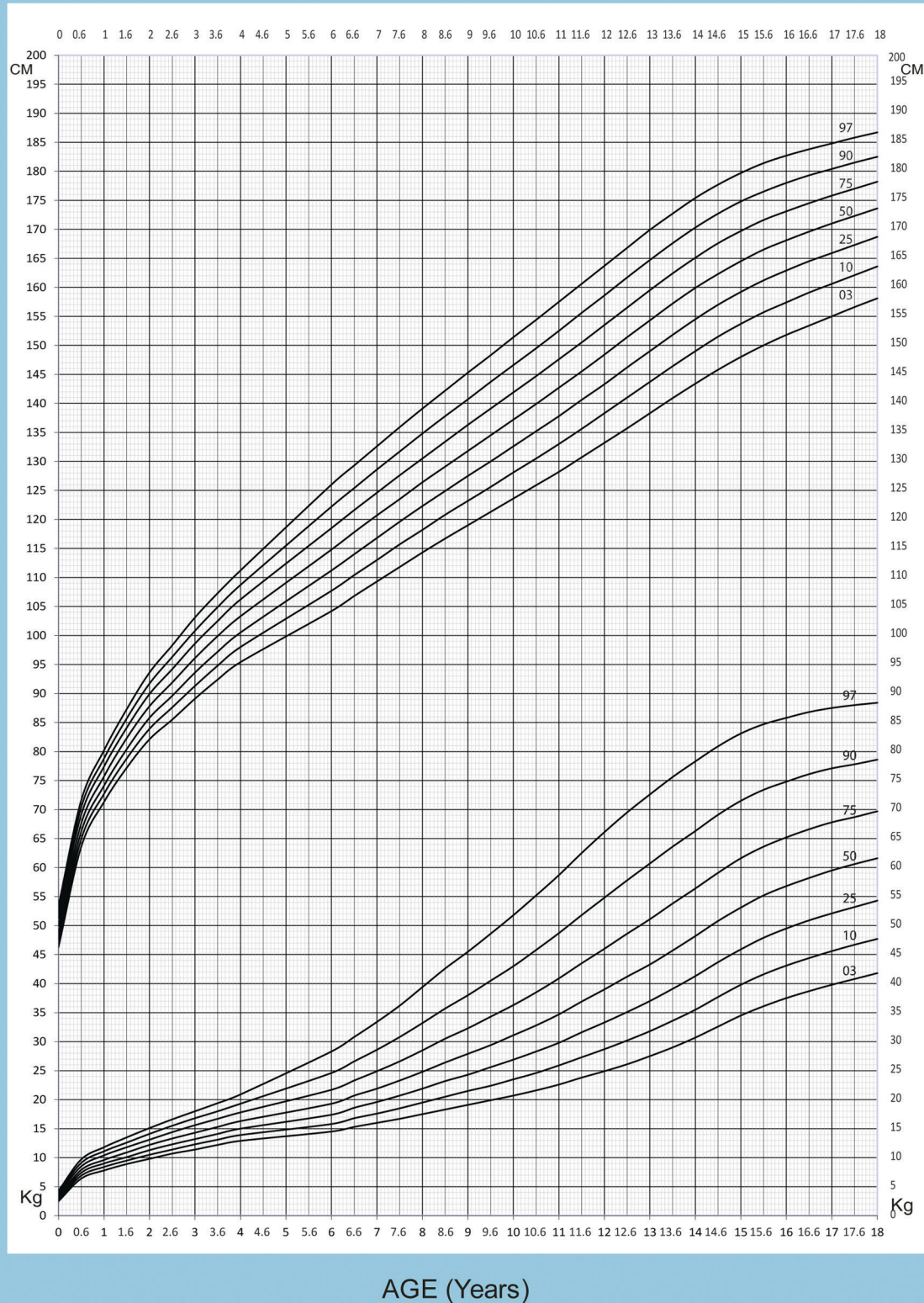
Indian Academy of Pediatrics (IAP) Growth Charts for Boys and Girls (0–18 Years)

0–18 Years: Boys

WHO 2006 and IAP 2015 Combined Height and Weight Charts

NAME _____

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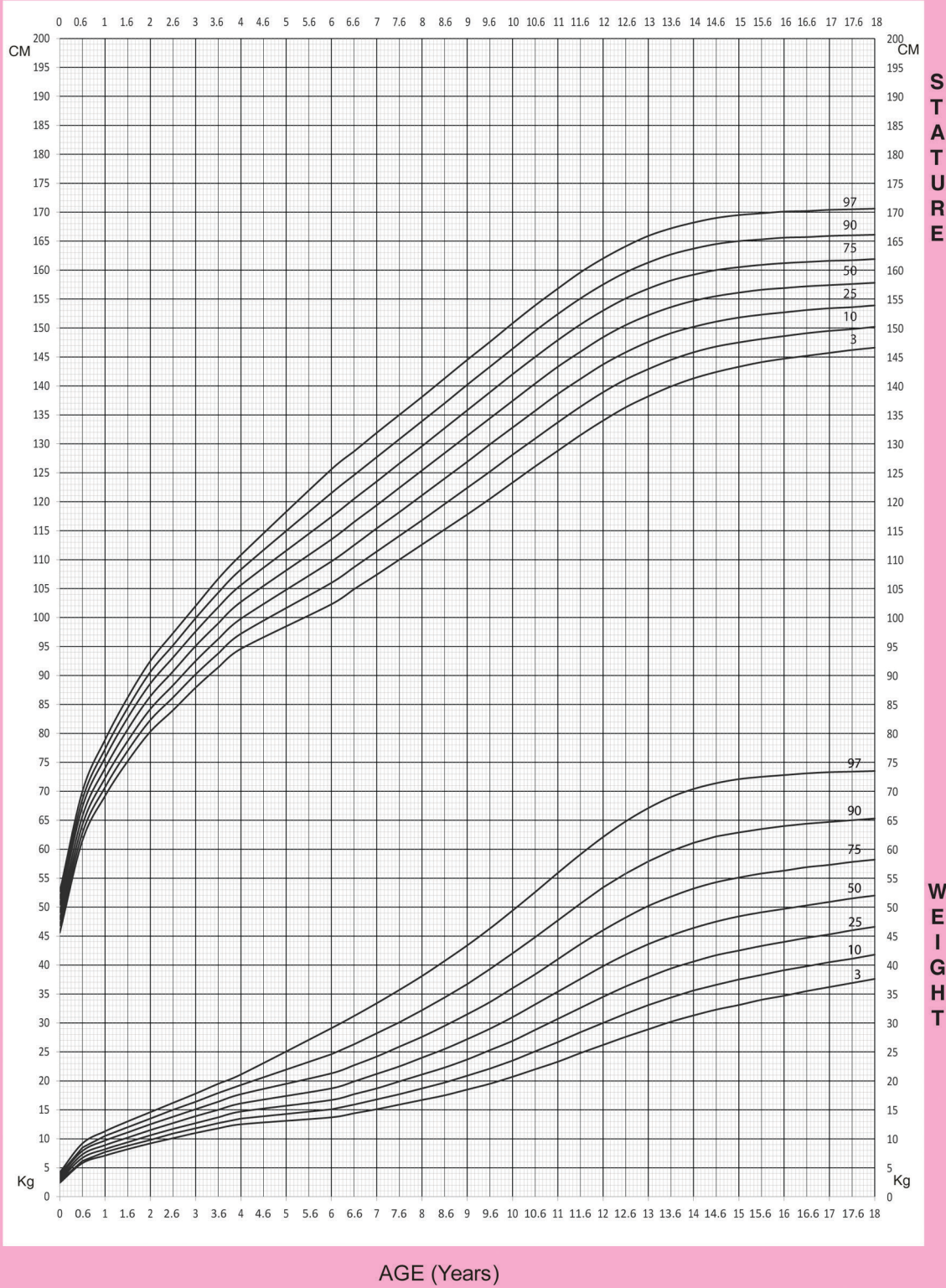
1. WHO 2006 MGRS Charts.

2. Khadilkar V, et al, from Indian Academy of Pediatrics. Growth Chart Committee. Revised IAP Growth Charts for Height, Weight and Body Mass Index for 5–18 years old Indian Children. Indian Pediatrics. 2015; Volume 52.

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