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Puberty - The Life - Changing Milestone

NOGS 20-21 & AMOGS PAC INITIATIVE

VOLUME - 5



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(NOGS ka Google)



Don't Google... Ask Noogle

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INDEX



Sr. No.	Topics	Page No.
01	WHAT IS ADOLSCENCE?	06
02	PHYSICAL CHANGES IN ADOLESCENCE	07
03	MENTAL CHANGES IN ADOLESCENCE	08
04	ABNORMAL PATTERN OF MENARCHE	09
05	ADOLESCENCE & DIET	11
06	ADOLESCENCE & EXERCISE	12
07	POLYCYSTIC OVARIAN SYNDROME / DISEASE	13
08	VACCINATION DURING ADOLESCENCE	14
09	AGE OF MARRIAGE	15
10	OBESITY & ADOLESCENCE	16
11	ROLE OF PARENTS	17



Dear Members,

It gives me immense pleasure to hand over the fifth volume of Patient's Information handouts which is going to be monthly feature. The fifth volume focuses on "Puberty - The Life – Changing Milestone."

In recent years, patients have increasingly requested the opportunity to participate fully in their medical care. An important part of responding to this is providing educational handouts that inform patients about health problems, describe medical treatments, and promote healthy behaviors. They are useful extension of spoken communications and are also an extension of medical care. Spoken messages are forgotten quickly and so they need to be reinforced with the informative handouts. Educational handouts are an important part of the communication patients receive from health care providers.

This is our small effort to provide our members with these ready handouts for better communication with their patients. The member can print and use them for their patients benefit. We hope that you will find them useful.

I wish to profusely thank the ever enthusiastic, ever ready NOGS Member Dr. Shivangi Jahagirdar for toiling very hard and putting it up together within a very short span of time. We deeply appreciate her super effort.

Wishing you all a very healthy patient interaction.

Sincerely,

Dr. Vaidehi Marathe

President NOGS 2020-21

Chairperson PAC AMOGS



Message from the President AMOGS...



Hello everyone,

The theme of AMOGS this year is “We for Stree”. I would like to thank every AMOGSian who has helped making every woman Safer, Stronger, and Smarter.

I would like to congratulate Dr. Vaidehi Marathe and Team NOGS for this Patient education booklet. I would also like to thank the contributors and the editorial team for their contributions towards this great booklet.

The aim of this booklet is to ensure that you are able to get basic knowledge regarding different areas of women health care. I hope this booklet helps you achieve that and clears all your doubts.

**Dr. Nandita Palshetkar
President
AMOGS.**



WHAT IS ADOLSCENCE?

- **What is ADOLSCENCE?**

- Adolescence is defined as the period of human life when a child is transformed into an Adult.

- **What is the age of achieving Adolescence?**

- This period can be variable for all but mostly the changes take place between 10-19 years of age. Government of INDIA has declared adolescence age between 13-19 yrs(Teenage).

- **What are the Physical changes noticed in Adolescence?**

- The first changes in the female body are Breast changes, then Pubic hair start developing. There is a change in body shape due to fat redistribution & so skin also becomes oily leading to acne formation. And commencement of Menstruation commonly termed as MENARCHE.

- **What are the Mental changes during Adolescence?**

- There are lots of Psychological & Social changes in human body during Adolescence .Also there begins a phase of peer group pressure.

- **What are the Changes in thought process?**

- Kids start Excessive thinking & start Taking interest in various subjects. They also learn to set their goals & choose their company.

Physical Changes in Adolescence

- **Breast changes in female body ?**

- Breast is the first organ to undergo changes during Adolescence. Breast buds enlarge in size, they are sensitive to touch & sometimes painful as well. The Areola changes in colour, becomes darker but remains soft.

- **Changes in Pubic hair & Body hair?**

- The pubic hair are initially long & soft hair which later becomes darker and coarser. Appearance of auxiliary hair, hair on legs ,arms, areola of breast & partially on face as well. Many a times, excessive facial hair becomes a reason for embarrassment & may need treatment or counseling.

- **Changes in Body shape?**

- There is Increase in height & weight, the hips get wider, Increase in fat deposition in buttocks, legs, tummy due to redistribution of body fat.

- **What changes does skin undergo during Adolescence ?**

- Skin start producing more oil due to male hormones which are produced in variable quantities in females as well. So sebum is produced more from sweat glands & there is development of Acne & Pimples.

- **What is Menarche?**

- Commencement of menses in the form of cyclical bleeding. Initially, the menses are of irregular pattern, may be 45-60 days and painful. Usually, it settles upto 2 years of menarche. If irregularity continues beyond that, there is a need for evaluation.

Mental Changes in Adolescence

- **What are the Psychological changes during Adolescence?**

- These are the most crucial changes to be watched in this phase. Kids develop ability to think abstractly, Frequently Introspect themselves, Increase in developmental tasks, Establishing values and setting norms for self.

- **How an individual change Socially during Adolescence?**

- Teenagers start Interacting with each other & also with new individuals, start becoming Independent & responsible, seek new experiences & try to find their identity giving their individual opinions.

- **What is Peer group pressure?**

- Pressure & Insecurities which develop due to acquaintances & comparison tendencies among kids.

- **What is the role of Technology in modern era ?**

- Due to technological advancements, sea of information is available on google, sometimes adding to confusion about right & wrong. They must be supervised & guided from time to time by real life experiences.

- **What are the behavioral changes observed?**

- Children become Hyper-reactive and aggressive while simple discussions. Their main motto is proving their point correct.

ABNORMAL PATTERN OF MENARCHE

- **What is the normal age for attaining Menarche in girls?**

- In India, the normal age of attaining Menarche ranges somewhere between 11-14 years but it can be early or late depending on weight, height, physical activity, health problems & many other factors.

- **What is early or Precocious Puberty?**

- Early Puberty is when the changes of puberty appear before the age of 9 years in girls and when changes appear before the age of 8 years, its known as Precocious Puberty. The causes may include some genetic syndromes, Central nervous system problems, tumors of ovaries, adrenals or Pituitary glands, Hypothyroid etc.

- **Does Early Menarche need treatment?**

- Maximum cases of early Menarche should be taken care with Reassurance with proper counseling & hygiene guidance. But early Menarche needs treatment if it is distressing for the mental health or if height remains less for the given age group. It can be treated medically with GnRH agonists or surgical correction if indicated as per the cause.

- **What is Delayed Puberty?**

- Delayed Puberty in girls is when Breasts don't develop by 13 years of age or menstrual periods don't begin by the age of 16 years. Causes may include constitutional delay, Hormonal disorders, chronic medical disorders, Disordered eating, Genetic syndromes, certain infections, Chemotherapy & Radiotherapy etc.

- **Is Delayed puberty bad & whether it should be treated?**

- No, its not harmful unless its associated with structural defects in body such as absence of sex organs. So, Delayed puberty should be evaluated by checking hormonal profile & MRI for target tissues But if all investigations turn normal, reassurance & patient waiting is advised. If needed, surgical correction is done along with hormone corrections.

- **Does Delayed puberty affects fertility?**

- There is no direct correlation between the two. Once axis is triggered, it works similar to others.

Adolescence & Diet

- **What is Balanced Diet?**

- A diet that contains different foods in required quantities to fulfill requirements for a healthy body is called Balanced Diet.

- **What should be consumed more in Adolescence?**

- Adolescence is a period of continuous growth & hence foods containing Vitamin D, Folate, Milk, Yoghurt, Vit A, Vit B- Complex, Proteins, Vegetable & Fruits are to be consumed in proper quantities.

- **What should be consumed less in this age?**

- Hydrogenated fats & Bakery products are to be consumed minimally during this period as they increase the risk of Heart attacks, strokes & Type 2 Diabetes mellitus. So reduce intake of Donuts, cookies, fried foods & processed items.

- **What should be completely banned?**

- Junk foods & Sweetened drinks should not be consumed during adolescence as its linked to development of Obesity, Depression, Food cravings, Heart disease, strokes, cancers & Type 2 Diabetes Mellitus.

- **What do you mean by junk food?**

- Highly processed food with High quantities of sugar, salt & fat with negligible nutrient value is known as junk food. Its nutritionally poor & increase food cravings. Not all fast foods are junk e.g. Salads are fast foods but not junk. Also Pizzas, Pastas can be fast healthy foods depending on the ingredients.

Adolescence & Exercise

- **Importance of Exercise in Adolescence?**
 - Exercise should be an essential component of our daily routine. Regular Exercise improves Cardio-respiratory fitness, maintain strong bones & muscles, control weight & reduces Depression.
- **Which exercises can be done regularly in Adolescence?**
 - The routine exercises of this age include Brisk Walking, Cycling, Swimming, Squats, Push-ups, Mild weight lifting.
- **Which Exercises to be avoided during this age & why?**
 - During these growing years, One must avoid Power-lifting as it increases stress and induce Hormonal imbalance.
- **Benefits of doing YOGA?**
 - Yoga is a wonder therapy for any age including Adolescence. Yoga provides Physical & Mental stress release, Improve concentration techniques & Increase academic performance.
- **What is the importance of Games & Sports in this period?**
 - Kids should be encouraged to involve in a good sport as it increases the stamina, Develops Team-spirit, Learn Discipline and ability to cope up with failures.

Polycystic Ovarian Syndrome / Disease

- **What is Polycystic Ovarian Syndrome?**

- Polycystic ovarian syndrome is a hormonal disorder comprising of menstrual Irregularities, enlarged Ovaries & symptoms of Androgen excess like acne, Hirsutism & acanthosis nigricans (Discolouration of skin of upper back & neck).

- **What are the physical changes in PCOS?**

- PCOS is often associated with Obesity, Skin changes in the form of Acne and darkening over neck and back, excessive facial and body hair (male pattern) central deposition of fat over Belly & Buttocks. But some PCO individuals are lean as well.

- **What are the psychological changes & Fears in this syndrome?**

- There is more risk of Depression and anxiety due to poor self- image, metabolic disorder, obesity & Insecurities regarding Future due to menstrual irregularities.

- **What are the concerns of Parents?**

- Parents are concerned about Menstrual Irregularities & future Fertility of their daughters. Usually the treatment works temporarily & they are dissatisfied with doctors for the repeated pattern of irregular cycles. Detail explanation of the pathophysiology of the syndrome helps in gaining their confidence.

- **What preventive measures to be taken to tackle PCOS?**

- PCOS is a genetic syndrome in many & may run in families. But in others, it's a lifestyle disorder .Healthy Diet & Regular Exercise and Follow up at Gynaecologist for medical corrections is needed. Also meeting up with a Dietician & Physiotherapist may help in handling the syndrome with holistic approach.

Vaccination During Adolescence

- **RUBELLA VACCINE:**

- Rubella is a deadly disease which if contracted during pregnancy may cause fatal effects in fetus including Microcephaly, Encephalitis & It should be given at the age of 14 years in girls to prevent Rubella Syndrome in fetus in future.

- **CERVICAL CANCER VACCINE:**

- Cervical cancer is one of the commonest cancers found in India. But fortunately it's a preventable disease as effective vaccination & good screening gadgets are available. HPV Vaccine should be given at the age of 9 or 13 years (2 doses 6 months apart). Latest, it can be given by 26 years of age. Once vaccinated at proper age, screening with pap smear not indicated.
- Should complete doses before starting of sexual activity to get adequate protection with Antibody response.

- **TETANUS VACCINE:**

- Single shot of T-Dap in Adolescent from 11-12yrs to prevent Tetanus, Diphtheria & Pertussis .Booster dose every 10 years.

- **INFLUENZA VACCINE:**

- Influenza or Flu is a very common disease of all age groups particularly youngsters. Asthma & Allergies are very common in India. So, Flu vaccine should be given every year preferably in the months October to December.

- **HEPATITIS B VACCINE:**

- Given to adolescents between 11-12 years of age. Doses are 0, 1 & 6 months.

- **OPTIONAL VACCINES:**

1. Hepatitis A-to those who are travelling to Endemic areas for studies or jobs.
2. Varicella vaccine- Adolescents who have not received it earlier & have not suffered from chicken-pox previously should be immunized.

AGE OF MARRIAGE

- **What is the official age of marriage in India?**

- As we all are aware that the age of marriage according to Govt. of India is 18 years for girls and 21 years for boys.

- **What is the logic behind this age cut-off?**

- Below 18 years ,the physiological growth process is yet to complete and the stress of sexual activity and carrying pregnancy may be deleterious for health of a female.

- **What is the practical age cut-off from Gynaecologist view?**

- Medically, The upper age cut-off for females should be 25 years as Today's financially independent girls may take 2-3 years after marriage for 1st conception. And after 30 years, many issues related to fertility as well as medical disorders in pregnancy come into picture.

- **What is the correct age for 1st pregnancy?**

- Ideal & Practical age in modern world is between 23-25 years. But for professionals,1st pregnancy within 30yrs should be the motto to avoid pregnancy related complications & morbidities.

Obesity & Adolescence

- **Definition of Obesity?**

- Obesity is the most deadly disease of today's world as it brings along a set of co-morbidities. BMI equal to or greater than 95th percentile for age and gender is known as Obesity.

- **What are the causes of Obesity?**

- Though Obesity run in families but Lack of physical exercise and consuming more calories than needed are the main causes along with some metabolic disorders.

- **What are the risk factors?**

- There is a huge list of risk factors for Obesity but Family history, Sedentary Lifestyle choices, junk food consumption & obsessive eating disorders are the main risk factors.

- **What are the possible future complications of Obesity?**

- Obesity may lead to many lifestyle disorder such as Hypertension ,Type II Diabetes Mellitus Arthritis or Joint problems, Sleep Apnoea, skin disorders, Hyperlipidemias, Heart problems etc. Also Obesity leads to poor self-image which in turn may lead to Depression.

- **What are the measures for prevention of Obesity?**

- Try to develop a Healthy life-style with Balanced Diet and adequate Exercise. Avoid temptations & food cravings. Stay away from sedentary work habits. Its easier said than done. Self commitment is the key to success.

Role of Parents

- **What should be the attitude of parents?**

- Parents should keep in mind the changes happening in their kids & also the changes going on in the world due to technological advances. They should be understanding rather than judgmental.

- **How to be friendly with your kids?**

- The first thing to follow here as a rule is Never compare your generation with theirs .Every generation has its own challenges. Don't overburden the kids with unrealistic expectations like not watching televisions or not using mobiles at all. Over discipline leads to rebellious attitude in kids & increases their lying tendencies. Just make them understand the difference between right & wrong.

- **When to be liberal & when strict?**

- Be strict with the issues that are going to affect your kid's future like falling prey for addictions for the want of peer pressure. Be liberal with routine things like going out for eating, occasional night out at a friend's place, fancy hairstyles, modern dresses etc.

- **How to be accessible?**

- Always try to be a role model not a Preacher. And please avoid burdening your kids with your left out dreams to be completed.

- **How to help them in avoiding mistakes & facing Depression?**

- Discuss your mistakes with them too...they must understand that its ok to be wrong sometimes .Never try to prove that you took the right decisions every time in life.