

Q.1 – What do you mean by Motor Development ?

Ans: Motor development refers to the development of a child's bone, muscles and ability to move around and manipulate his/her environment. In simple words, motor development means the development of movement and various motor abilities from birth till death. In other words, motor development is the progressive change in movement through the life cycle.

Q.2 – Mention the types of motor development ?

Ans: Motor development in children can be divided into two parts:

Gross Motor Development: Gross motor development is the development of large muscles in the child's body such as sitting, walking, running, climbing etc.

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Fine Motor Development: Fine motor development is the development of the small muscles of the body especially in the small movement of the fingers and hands. For example, discus, polo catching a cricket ball, smashing a volleyball etc.

Q.3 – Discuss the factors affecting motor development in detail.

Ans: There are various factors which are liable to affect motor development of children. These factors are explained below:

1. **Nutrition:** Nutrition is liable to affect the motor development. Indeed, nutritious food promotes good motor development. Sensory motor development is dependent upon nutrition. If children get nutritious food they get stronger which ultimately leads to good motor development. On the other hand, if children do not get proper nutrition they are found to be less energetic and owing to that their motor development takes place slowly.
2. **Physical activities:** Performing regular physical activities, enhances the motor development at a faster rate. However, the physical activities must be according to the capabilities of children. Children, who do not perform or practice physical activities regularly minor activities, their motor development also becomes so slow that they take a long time for motor development.
3. **Opportunities:** It is a well known fact that the children who get ample opportunities to perform more and more physical activities or motor activities are likely to have better motor development. In fact, opportunities to take part in motor activities give a better chance for developing sensory motor activities.
4. **Postural deformities:** Postural deformities in children definitely affect their motor development. Any postural deformity viz., spinal curvature deformities, flat foot, knock-knees and bow legged etc. creates hindrances or obstacles in the path of motor development of children. In the absence of postural deformities the motor development in children takes place at a faster rate.
5. **Obesity:** Obesity and overweight have negative effect on the motor development of children. It means that children who are overweight or obese do not feel enough enthusiasm for any motor activity and may even find it uncomfortable to perform it. Motor development in such children takes place very slowly. They take more time to perform motor movement.

Q.4 – Elucidate any five physical and physiological benefits of exercise on children.

Ans: 1. **Exercise controls weight:** Regular exercise helps in controlling weight. In fact weight gain occurs when the child takes more calories than the requirement of his body. The unused or excess calories are accumulated as fats in his body. In this way, he starts gaining weight which ultimately leads him towards overweight and obesity.

2. **Exercise strengthens bones:** Exercise builds strong bones. As a matter of fact, exercise increases bone density which helps in preventing osteoporosis. If regular exercise is not performed, the bones usually lose their density, become weak, fragile and porous. Hence, exercise is beneficial because it helps in strengthening the bones.

3. **Exercise strengthens the lungs:** Exercise is beneficial for children because it enhances the lungs' capacity and their efficiency in inhalation and exhalation. It increases the size of lungs. Tidal air capacity and vital air capacity are increased.

4. **Exercise helps in motor development:** Exercise helps in motor development of infants and children at a faster rate which ultimately helps in making fine movements in later life. By performing exercise in early age the movements of muscles become efficient and smooth. It can also be said that their movements become more attractive.

5. **Exercise helps in digestive process:** During childhood, the growth and development takes place at a faster rate, so for proper growth and development digestive process should be efficient. Research studies indicate that exercise is beneficial for improving the digestive process.

Q. 5 – What do you mean by weight training ?

Ans: Weight training is defined as those exercises that are designed to strengthen specific muscles by causing them to overcome a fixed resistance, usually in the form of bar-bells or dumb-bells. In fact, weight training refers to the exercise phase of the activity where weight in the form of bar-bells and dumb-bells are used to condition and alter the sizes of various segments of the body.

Q. 6 – Mention any two advantages of weight training ?

Ans: 1. **Increases body density:** Weight training helps in increasing bone density. Research studies conducted in this field indicate that the risk of osteoporosis is lower for the individuals who perform weight training exercise at least three times a week.

2. **Reduces stress and tension:** Weight training is also advantageous for reducing stress and tension. In fact, it acts like an outlet for stress and tension.

Q. 7 – Elucidate two disadvantages of weight training.

Ans: 1. **Risk of injuries:** While performing weight training, there is always a risk of getting injuries specially when performing exercise without any companion. Whenever you are not able to perform the required repetition of exercise, at that critical

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moment, if you are alone you may be injured. So you should always have a companion or supporter with you in case the worst happens. In addition you should perform weight training under expert physical trainer.

2. **Less flexibility:** Weight training reduces the level of flexibility if flexibility exercises are not done along with weight training. However this is a mild or little disadvantage in comparison to many advantages. If flexibility exercises are performed persistently it will be negligible

Q.8 – What do you mean by correct posture ?

Ans: Correct posture means the balancing of body in accurate and proper manner while sitting, standing, reading, writing, walking, running or during any other action. It means that correct posture is the position of the body held with least fatigue. It can also be said that if an individual's all the organs are in proper and right alignment, his posture is correct posture.

Q. 9 – Explain the correct posture of standing ?

Ans: In standing position, both the heels of the feet should meet each other. Toes of the feet should be "3" to "4" apart. The whole body should be erect. Straight knees, chin inside, chest forward, belly backward and pressed inside with equal body weight on both feet. In this position, the complete body should be balanced. From the side line of the centre of gravity must pass through the ear, shoulders, hip, knee and ankle. In such a position, the muscles and ligament remain free of stress.

Q. 10 – Explain the correct posture of sitting.

Ans: When we sit in a chair, our hips should be as far back in the chair as possible. Head, spinal column, shoulders and hips should be in straight line and erect. Legs should touch the ground and not in hanging position. Things should be in horizontal position. While we read, the book should be on table but the book should not be too far away or near the eyes. The approximate distance between book and eyes should be at least 30 cm. If we do not follow this rule, eyesight problem may occur.

Q. 11 – Discuss any two advantages of correct postures.

Ans:Physical Appearance: It is a natural phenomenon that every individual wants to have a good physical appearance. It also becomes more important in the presence of opposite sex. For creating a good impression on other people, good appearance is a prerequisite. In fact physical appearance depends upon the posture of the individual. This leaves the first impression upon other. For good physical appearance, people do not hesitate to spend a large amount of money. It does not mean that they waste their precious money. It is not a wastage. It adds something, but the outlook of a person mostly depends upon this posture.

Q. 12 – What are the bad causes of bad posture? Explain any eight.

Ans: Causes of Bad Posture:

1. **Lack Of exercise:** Exercise tones up the spinal nerves and abdominal organs, improves digestion, promotes flexibility and co-ordination, reduces mental strain, provides energy, improves physical ability and efficiency. Lack of exercise is also a factor of poor posture.
2. **Weakness:** It is not possible to assume and maintain erect posture without expenditure of some energy. The muscular weakness and lack of viability is thus responsible for such faulty posture.
3. **Improper Clothing:** The type of dress one wears also has impact or effect on posture i.e., high heel shoes, tight shoes tight fitted dress.
4. **Improper Diet:** Improper diet may result in various diseases due to deficiencies of vitamins, minerals in adopting faulty and poor posture.
5. **Habit:** Habits of posture, whether good or bad, are acquired in the same way as the habits of walking, speaking or sitting i.e., by practicing a certain type of co-ordination so many times that the act becomes unconscious and habitual and wrong habits are caused by occupation and environments also.
6. **Chronic Fatigue:** Due to continuous work lack of rest and sound sleep without proper relaxation the body and mind become over-worked and cause poor posture.
7. **Overload:** One may develop round shoulders and deformities of spine like kyphosis and scoliosis by continuously lifting heavy weight on shoulders and the upper back.
8. **Mental Attitude:** A posture is the manner in which we carry or hold our body and it is bound to reflect our mental attitude, feeling of happiness, confidence and satisfaction help to maintain a balanced and erect posture, whereas depression and feeling of sadness pose hurdles in proper posture maintaining.

Q. 13 – Explain the causes and remedial measures to knock knees ?

Ans:Causes of Knock-knee:

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This deformity mainly causes due to weakness of muscles and ligaments and also softness of bones of the knee region. As we know the knee has to bear the maximum pressure in standing position and body movements, the muscles and ligaments of their region need to be strong and in proper tone. Any kind of weakness can lead to knock-knees. This defect usually occurs in early age. In infancy, general weakness or sometimes overweight of the child may lead to this kind of deformity.

Remedial Measures to Knock Knees:

Massage and active and passive movement to be done to strengthen the weak muscle. Performing padmasana and gomukhasana regularly for some time is a good option. Horse riding is the best exercise for remediation of this deformity. To remove this deformity, extra care should be taken while walking, standing and other weight bearing positions. Walking on an outward inclined surface and applying pressure on the outer edge of the feet will be helpful in this deformity.

Q. 14 – Explain the causes and remedial measures to Kyphosis?

Ans:Causes of Kyphosis:

Primary causes such as defective vision or hearing often result in holding the head further forward. Defective vision or incorrect spectacles lead to the development of leaning forward specially while writing or reading books. Hard hearing people often develop the habit of craning forward to assist their hearing. Tight and rough collars of a dress may result in holding the head wrongly. All such habits produce a strain on the extensor or pulling back muscles of the neck and spine and make them weak.

Remedial Measures to Knock Knees:

1. Lying in a lateral position and circling the free arm.
2. Arms stretching backward and bringing the chest forward.
3. Head backward bending.
4. Head extension in prone lying position.
5. Holding the ankles with hands in prone lying position and making a back arch (Dhanurasana).
6. In prone lying position with hands behind the neck. Partner pulling the arms upward

Q. 15 – Explain the causes and remedial measures to Round Shoulders ?

Ans:Causes of Round Shoulders:

Round shoulder deformity causes due to poor posture during work, faulty furniture, wrong habit of sitting and standing or carrying heavy loads on one shoulders or upper back. It is generally associated with forward displacement of the shoulders.

Remedial Measures to Round Shoulders:

Try to sit, stand in erect position. Avoid using faulty furniture due to which round shoulder deformity occurs. It is advised that do not to always carry heavy loads on one shoulder either due to habit or by occupation. Always change the side time to time to avoid any kind of deformity. The corrective exercises may improve the curvature where there is a loss of only muscular tone.

It is essential to seek medical advice before any attempt is made to correct the deformity by exercise. The aim of exercise should be to restore the muscular balance between antagonistic groups of muscles. Stand in erect position. Do not allow to drop the shoulder. Do shoulder exercise freely with forward and backward rotation. Do more exercise with the shoulder with is bent down one side due to heavy work or wrong sitting position.

Q.16 – Explain the causes and remedial measures to Lordosis ?

Ans:Causes of Lordosis:

This defect is probably due to habit formation during the growing years. This mainly causes due to imbalanced diet, improper environment, improper development of muscles, obesity and diseases affecting vertebrae and spinal muscles. We should take the following precaution to avoid this deformity:

1. Excessive intake of food should be avoided.
2. Balanced diet should be taken.
3. Obesity should be kept away specially in early age.
4. The body should be kept straight while carrying weight.

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Remedial Measures to Lordosis:

1. Sitting on a bench and bringing the head close to the knees.
2. From long sitting position with the knees slightly flexed, holding behind the knees and bending forward so as to bring the head close to the knee.
3. From the knee sitting position place the hands in front at shoulder width apart. Raise alternately one knee and bring close to the chest with having maximum convexity at the back.
4. Patient in supine lying position with hands at the sides of the body, palm facing downward. Raise both the legs slowly and bring the toes over and above the head level and place them on the floor.
5. Individual in supine position with the knees slightly bent. The hands are kept behind the neck. Partner holds the legs. Slowly raise the head and trunk and bring the elbow close to the knees.
6. Halasana should be performed regularly.
7. You should lie down in supine position, i.e., on your back, then should raise your legs at 45° angle. Keep in this position for some time.
8. Toe-touching should be performed for at least 10 times.
9. Sit down and extend your legs forward. Try to touch your forehead to your knees. Repeat this exercise for 8-10 times.

Q. 17 – Explain the causes and remedial measures to Scoliosis ?

Ans:Causes of Scoliosis:

This type of deformity occurs due to injury or disease. It may be the result of weakening of the spinal muscles of one side and the strengthening of the muscles of the other side. It also occurs due to the adaptation of wrong sitting positions during study or writing when working on table. It is mostly associated with some loss of strength in all the body muscles.

Remedial Measures to Scoliosis:

1. Hanging on the bars with sideward bending to the opposite side of the spinal curve or concavity is recommended.
2. Exercise on hanging on bars helps the spine to straighten.
3. Deep breathing and general coordination exercise should be done.
4. Swimming is the best exercise. Breast stroke style is most suitable and useful exercise for this defect.
5. Exercise of the spine-like flexion, extension, rotation and sideward flexion of the spine should be done.

Q. 18 – Explain the causes and remedial measures to Bow Legs ?

Ans:Causes of Bow Legs:

Due to deficiency of calcium and phosphorus of the bones this deformity occurs. It results in the softening of the bones. Long bones of legs which have to bear a lot of strain, get bent. The bow legs is also found in footballers. The outward toe and kicking of football also causes the deformity. This bending of curvature of the long bones of the legs is called rickets. This generally occurs in children between the age of six to eighteen months.

Remedial Measures to Bow legs:

1. Use the correct method of walking in order to avoid any kind of deformity.
2. Do not allow children to stand for long hours which give strain on the legs.
3. Teach the child to stand in correct position to avoid any kind of deformity.
4. Use lateral heel wedge in shoes.

Q 19 – What are the causes of Flat foot deformity ? Explain any three.

Ans:Causes of Flat Foot:

Flat foot deformity occurs due to the loss of tone in the muscle supporting the foot which result in the flattening of the arch. The defect is mostly caused due to Bad or faulty Posture; Standing for a long time; lack of exercise; Unsuitable or without arch local footwear; overweight of the body.

Remedial Measures to Flat Foot:

1. Walking with feet parallel to each other, also walking on the outer border of the feet to strengthen the interferences.
2. Bending of the toes downwards round a point of resistance.

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3. Picking up marbles with toes
4. Walking on heels and toes
5. Walking with feet parallel to each other.
6. Backward and forward hopping with knees bent.
7. Walking on slopes.

Q. 20 – How can physical activities can be helpful in correcting common posture deformity?

Ans: There are various internal problems occur in the body which deteriorate the health and cause physical problems. To overcome through these deformities and not allow deformities in our body we have to concentrate on various physical activities. Physical activities may be easy or rigorous but we should involve ourselves in some or the other physical activity because physical activities are good source of correcting various deformities.

The General influence of physical activities is as follows:

1. Effect on chest.
2. Effect on organs of movement
3. Effect on muscular pressure
4. Effect on digestion
5. Effect on respiration
6. Effect on heart and blood.

The worst condition of this position is the compression, resulting in contraction, or atleast imperfect development of the upper part of the chest. This kind of deformity may be classed as a more exaggerated, of the various species of spinal curvature, often due to weakness of the dorsal muscle or to inordinate or unregulated growth. The true cause of these displacement is often, if not always, to be found in neglect of proper exercise for the muscles which hold the parts, in their due relationship with each other. Following are some of the corrective measures:

- (1) To minimize or correct kyphosis, some corrective exercise should be done with the help of physical activity. These activities and exercises, should be done under expert medical advice, to improve muscular tone of the stretched muscles. Care should be taken to see that the muscle group that is lacking in tone, should never be too stretched.
- (2) For correcting functional flat foot one should exercise by rising on the toes, by climbing stairs on the toes, by rope skipping and by cycling. The foot should be through extreme range of its motion by voluntary contraction to stretch the shortened soft structures. The emphasis should be upon the physical activities and exercises involving toe flexion, foot and ankle flexion and supination.
- (3) Breathing and general coordination physical activities are useful in removing scoliosis deformity.
- (4) Swimming with breast stroke style is most useful for correcting scoliosis deformity.
- (5) The head carriage and round back may be improved by physical activity and exercise to strength and shorten the extension or back muscles of the neck and upper part of the spine at the same time lengthen the muscles that bend the neck forward. The round shoulder can be corrected by strengthening the shoulder muscles and lengthening the chest muscles.
- (6) Physical activity like picking up objects with toes and bending of the toes downwards round a point of resistance can minimize defect of flat foot.
- (7) Beam hanging exercises help the spine a lot. Therefore beam hanging with sideward bending to the opposite side of the curve or concavity is recommended.
- (8) During physical activities general spinal exercise of flexion, extension, rotation and sideward flexion of the spine should be done.



Q. 1 – What do you mean by sports participation of women ?

Ans: Women in sports has been a topic virtually ignored by most scholars and thus female sports participation has been a relatively undeveloped area of research. Sex role, stereotyping, male research. Bias and the reward structure of society have contributed to the neglect. Currently sports for women represents a fast growing changing element in Indian culture, and recent trends have sparked a need for knowledge about the female sports participation. Constraints of women participation in sports in India due to parental, community to tradition, religion, college and personal constraints and pressures.

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Q. 2 – What is Menarche?

Ans: Menarche is the first menstrual cycle, or first menstrual bleeding in female humans. Your first menstrual period is called menarche (say "MEN – ar – Kee").girls experience menarche at different ages. The timing of menarche is influenced by female biology, as well as genetic and environmental factors, especially nutritional factors. The arrange of menarche has declined over the last century, but the magnitude of the decline and the factors responsible remains subjects of contention.

Q. 3 – What is menstrual disfunction ?

Ans: A menstrual disorder is an irregular condition in a women's menstrual cycle. Most menstrual cycles occur every 22 to 35 days. Normal menstrual flow lasts 3 to 7 days, with most blood loss occurring within the first 3 days. Increasing numbers of women of all ages have been participating in sports at both recreational and competitive levels. Most girls and women derive significant health benefits from regular physical activity. They can achieve the same training effects as do men, such as decreased blood pressure, lowered heart rate, and improved aerobic capacity, as well as decreased percent body fat.

Q. 4 – What is menopause?

Ans: menopause is the term commonly used to refer to the period of time both before and after a woman's last menstrual period. Technically, menopause is a woman's last menstrual period, while the time period immediately prior to menopause is referred to as "peri-menopause" and the time following menopause is referred to as "post-menopause".

Q. 5 – What is amenorrhea?

Ans: Poor nutrition, low calories intake, high-energy demands, physical and emotional stress, or low percentage of body fat can lead to harmaonal changes that stop menstrual periods.

Q. 6 – What is osteoporosis?

Ans: Osteoporosis (low bone density for age), lack of periods disrupts the body's bone – building processes and weakens the skeleton, making bones more likely to break.

Q. 7 – What is anaemia?

Abnormal eating habits (i.e crash diets, binge eating) or excessive exercise keeps the body from getting enough nutrition.

Q. 8 – What is ideology?

Ans: It has been observed constantly that instead of overall development of students, parents are after the merit and percent age of their child. Now it is necessary to include the feeling that the sports is also a part of education and plays vital role in life of individual. Especially for 10th class percentage, parents start the tuition classes from 9th class. From 9th to 12thstd, the structure become completely busy in tuition as well as in study at the age of 15th, 16th, 17th and 18th and these students remain physically unfit due to lack of participation in sports.

Q. 9 – Why there is less participation of women in India? Give any three reasons.

Ans: Here are some factors regarding women's non-participation in games and sports. The results may go a long way in removing some of these prejudices. Some hidden talents of women will be helpful in improving the level of participation and achievement at the national and international level of Indian women.

1. **No parental encouragement:** There has been lack of encouragement from the parents and family members.
2. **Traditional Society:** The traditional way of living was a big hurdle for women taking part in games and sports.
3. **Less Knowledge:** There was lack of sports orientation of the people living in the society. Taking part in games and sports for women has not become a common phenomenon.

Q. 10 – What is pregnancy ? What are the three risk of Heavy exercises on the pregnant female.

Ans: Pregnancy can occur by sexual intercourse or assisted reproductive technology. It usually lasts 40 weeks from the last menstrual period (LMP) and ends in child birth. An embryo is the developing offspring during the first week. Some early symptoms of pregnancy may include missed period, tender breast, nausea and vomiting hunger, frequent urination, etc. It can be confirmed with a pregnancy test.

Due to heavy exercises, there may be following types of risks on pregnant women:

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1. During pregnancy secretion of relaxin, elastin, estrogen and progesterone hormones increases in females which soften connective tissue surrounding the joints. This allows the pelvic joints to expand in order to accommodate the baby passing through the pelvic inlet during birth. But along with pelvic joint other weight bearing joints are also softened like knees, ankles and hips. As a result, chance of injuries to those joints increase. It is due to this reason jumping and jarring movements should be avoided during pregnancy.
2. Heavy exercises may induce severe fatigue or tiredness.
3. Pregnant female may experience a significant decrease in the blood glucose level.

Q.11 – Write the psychological and sociological aspects of women in sports.

Ans: Social situation has great influence upon the psychological aspects of woman's personality. Sports psychology studies on gender are limited. Based on these studies given below are the facts about psychological variables of sportswomen:

1. **Confidence and Self-esteem:** Researches and studies show that in comparison to males, females lack confidence and self-esteem by participating in physical activity programmes of high intensity, like weight and strength training. self-esteem and confidence of females increase tremendously. By doing this, they become more confident, competent, capable to strive for excellence, ready to accomplish a goal through effort and training.
2. **Body Image:** In the field of sports, body image pressures are mainly among the female sportswomen of thin body sports like gymnastics, dance and running. Most enlighten coaches and instructors follow nutritional guidelines and emphasize upon healthy eating and exercise rather than crash dieting for weight reduction. Strive for size zero or unhealthy thinner often develops various eating disorders in females like anorexia nervosa and bulimia nervosa.
3. **Competitions and General Achievements:** Studies show that in competitive sports, male sportspersons are more competitive and do much better than female sportspersons. Females are more goal-oriented and do well in creative and expressive activities. Women do well in aesthetic quality and individual activities in contrast to direct competition and team sports. They emphasize upon the successful completion of their task or goal.
4. **Level of Aggression:** A male athlete is more likely to continue his aggressive behavior in his life as well as in sports field too. As for example, an aggressive soccer player could be male or female, but a male soccer player is more likely to grow up in a world that justifies and reinforces aggressive behaviors. An aggressive female athlete, no matter how aggressive she remains during competition is socialized to keep quiet, be good and let others to take the lead in her personal life.
5. **Gender Role-orientation:** According to the physical fitness excerpts, competitive experts tend to develop behavior patterns which are contrary to female nature. Studies show that female athletes or players possess more masculine personality characteristics than the female non-athletes.

Q.12 – Describe any three risks of heavy exercises on the foetus.

Ans: **Risk of heavy exercises on the foetus:**

1. If a pregnant woman is involved in a heavy physical exercise of high intensity for longer duration, chances of miscarriage increase during the first three months of pregnancy.
2. Exercise for longer duration in warm/humid environment by the pregnant women may include an acute increased core temperature in the foetus which may affect the Central Nervous System (CNS).
3. When a pregnant woman is involved in long duration endurance physical activities her muscle and liver glycogen level is depleted and there is significant decrease in the glucose supply to the foetus.