

PHYSICAL EDUCATION

CHAPTER 4: CHILDREN & WOMAN IN SPORTS



CHILDREN & WOMAN IN SPORTS

Children & woman in sports:



Children and women in sports is very important for any country's sports development. For getting higher performance in the field of sports children and women need to be strong enough in both physically and mentally. They need proper motor development. Motor development is the development of child bones, muscles and ability to move around and manipulate his environment.

Various motor movements are essential for children for everyday life activities such as sitting, walking, running, climbing, catching, holding, jumping, throwing etc.

It refers to the changes of movement behaviour. It is a development of physical fitness, along with large muscles, small muscles, bones and nervous system of the body.

It provides perfection in action and graceful movement.

Motor development in children takes place in two parts.

- **Gross Motor Development:** It involves development of large or big muscles in the body. Big muscles help them to stand, sit, run, jump, etc.
- **Fine Motor Development:** It is the development of small muscles in the body. Small muscles help them to do fine work like catching, throwing, picking, kicking, dancing, writing, etc.

Factor Affecting Motor Development:

- i. **Heredity Factors:** affect children motor development.
- ii. **Nutritious food and balance diet:** promotes good motor development.

- iii. **Immunization:** If mother and child both are immunised at proper time it leads to good motor development.
- iv. **Environment:** Clean, safe, and natural environment is good for development.
- v. **Psychological feedback and motivation:** children should be encouraged and motivated to perform physical activity by which motor development is improved.
- vi. **Disability and disease:** It reduce perfection in motor skills.
- vii. **Regular practice:** With regular practice motor development improves.
- viii. **Body weight:** Those who are overweight and obese have less motor development.
- ix. **Mental ability:** Development depends upon mental level.
- x. **Gender:** There is difference of motor development between boys and girls.
- xi. **Rest and relaxation:** Proper rest and relaxation should be considered for motor development.
- xii. **Proper training:** Proper coaching and training is required to faster development motor skills.
- xiii. **Interest and attitude:** Interest of child is one of the important factor for development.
- xiv. **Multi Activity** participation promotes faster motor development.

Exercise Guidelines at Different Stages:

➤ Infancy Stage (1 – 2 years)

During this stage, physical activity should be encouraged which develops child gross motor ability like body control, sitting, crawling etc.

➤ Early Childhood Stage (3 – 7 years)

During this age the main concern is to develop gross motor and fine motor components.

Children should be encouraged to participate in movement skills like throwing, jumping, catching, kicking etc.

➤ Later Childhood Stage (7 – 12 years)

During this stage children should be involved in various activities which includes throwing, jumping, catching etc.

By doing these activities they can acquire body control, strength, and coordination.

However activities related to heavy endurance should be avoided.

➤ Adolescence Stage (13 – 18 years)

During this stage moderate to vigorous intensity activities are recommended for 60 minutes.

They should involve themselves in muscle and bone strengthening exercises.

Common Postural Deformities:

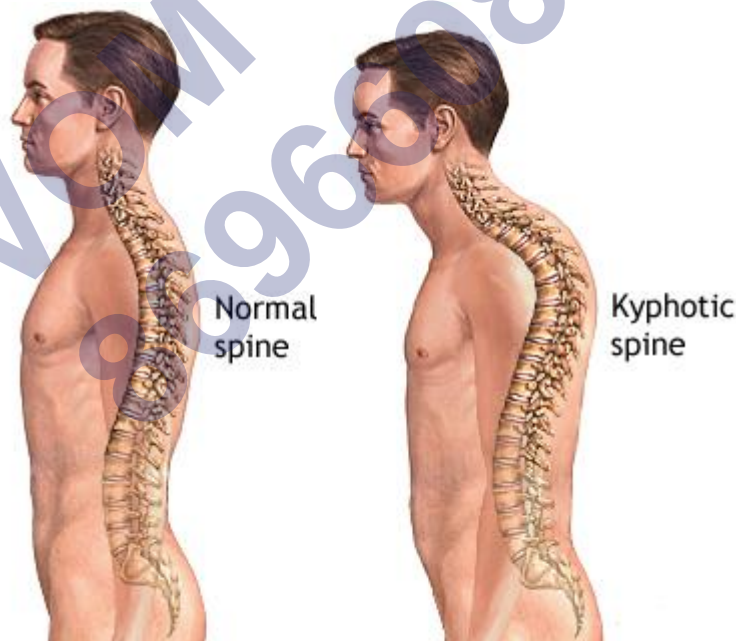
Spinal Curvature

This type of deformity is related to the vertebral column. This deformity develops by carrying excessive weight beyond capacity or weak muscles cause curvature of spinal curvature.

There are three types of spinal deformities

- Kyphosis
- Lordosis
- Scoliosis

Kyphosis



This is a problem of the thoracic cage and clavicle spine. So there is an abnormal curvature in the spine at front. It causes a hump at the back of the body.

Causes

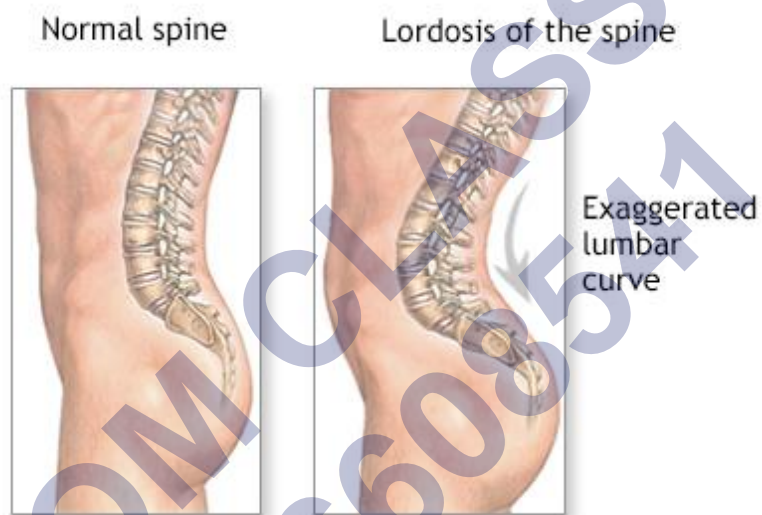
- Some major Causes are malnutrition, illness, insufficient exercise, rickets, carrying heavy loads on the shoulder, unsuitable furniture, weak muscles.

Corrective Measures

In knock out tournament only winning teams continue to play further and teams once get defeated, automatically get eliminated.

- Sit in the chair such that back touches the chair
- Keep a pillow under your back while sleeping
- Do some back bending Yoga Asanas regularly like chakrasana, dhanurasana and bhujangasana.

Lordosis



It is the inward curvature of the spine. In this deformity Lumber-Spine which bends in front beyond the normal level. Abdomen is ahead of the body.

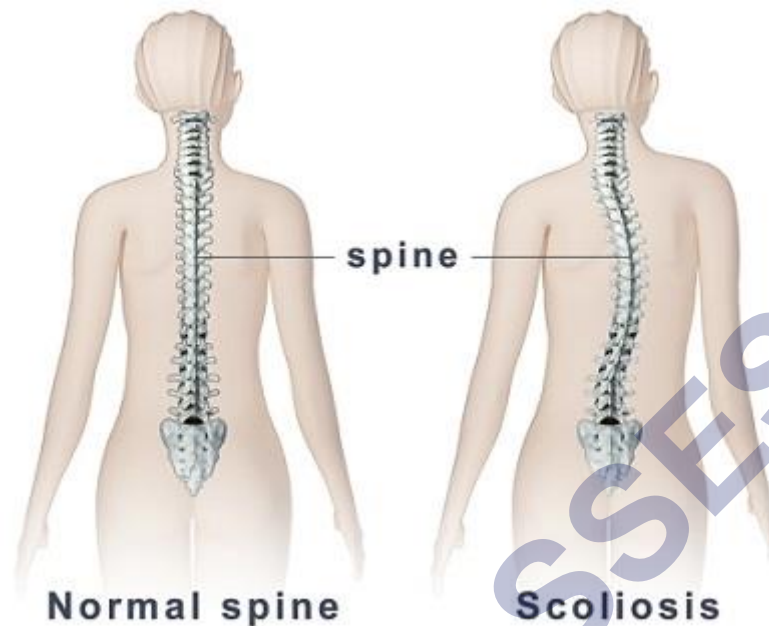
Causes

- Imbalance diet, improper environment, improper development of muscles, obesity and diseases affecting vertebra.

Corrective Measures

- All forward bending asanas and exercises are helpful for correcting Lordosis
- Do Yoga such as Paschimottanasana, halasana
- Do forward bending
- Alternate toe touching

Scoliosis



It is the problem of the spine, where the vertebral column bends sideward. Scoliosis causes one shoulder down and another raised up.

Body weight is shifted towards sideways and it causes a lot of pressure on one side of the foot.

Causes

Differences in leg length, , lifting weights towards one side, wrong standing postures.

Corrective Measures

- Sideward bending exercises. It should be done on the opposite side of the curve.
- Hold horizontal bar and swing your body to sides
- Do chin ups

Knock Knee

In this deformity knees knock or touch each other while standing, walking and running. The gap between the ankles goes on increasing.

Causes

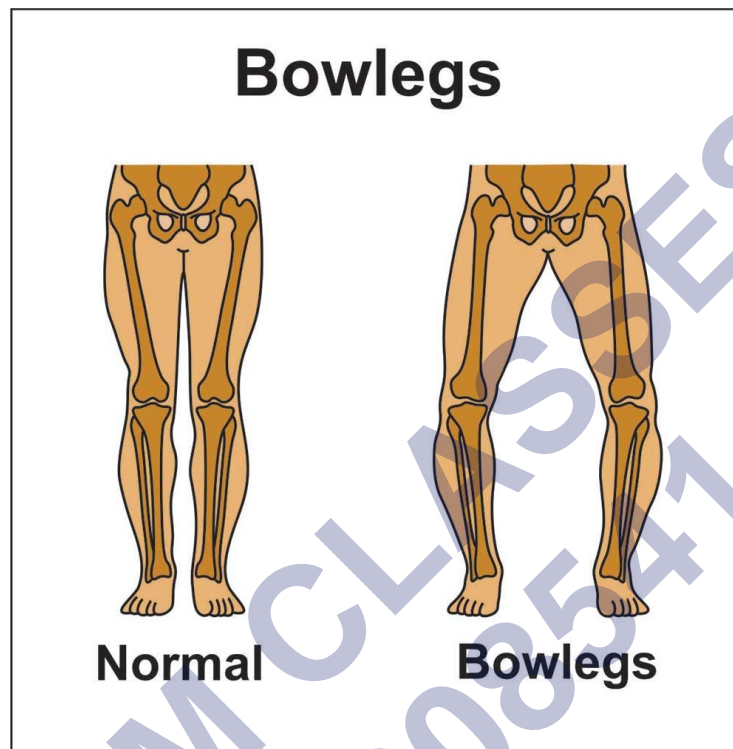
Lack of balance diet specially vit-D, calcium and phosphorous. It may hapoen due to Rickets, Weak legs, Obesity during childhood, overweight etc.

Corrective Measures

- Pillow exercise: Pillow is kept between legs and press the legs.

- Outward walking: Walk over outer edges of foot
- Do some Yoga like Padmasana, Vriksh asana, Akarn dhanur asana.

Bow Legs



In this deformity legs bend outward. The space between knees widens up. Bow legs caused a lot of pressure over the lateral edges of feet.

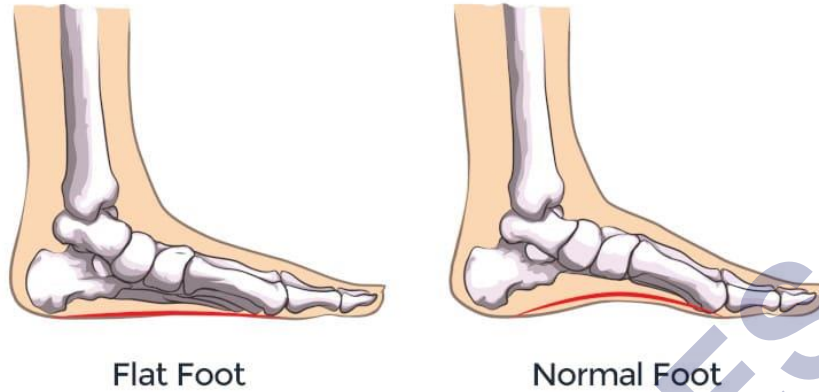
Causes

Rickets, Early childhood walking with weight, Obesity, Faulty shoes

Corrective Measures

- Take balance diet
- Walk with toes inward
- Do Yoga such as Garud Asana, Ardhmatseyendra Asana

Flat Foot



It is an abnormal condition of foot in which the arch of the foot collapses, with the entire sole touches (complete or near complete) the ground. The children with flatfoot feel pain in their feet when they walk or run.

Causes

Weak muscles, Poor quality shoes, Overweight, Obesity, Prolonged standing

Corrective Measures

- Walking on heels
- Rope skipping
- Jumping on toes
- Good quality shoes
- Writing with foot

Sports Participation of Women In India



Women are equally important in society, who takes part in social activities. Today, modern society started accepting the women's participation in sports competition.

The trend of women participation in sports has improved in Indian society and thus the number of women participation in sports has increased.

Causes of Less Participation of Indian Women In Sports:

- Gender inequality & social attitude
- No parental encouragement
- Traditional society
- Less motivation and inspiration
- Women constraining other women
- Lack of plans and initiatives for sports for women by the Government
- Male dominant culture
- Less availability of women coaches
- No independent games facilities for women
- More emphasis on study
- Less competition
- Economic Factors
- Social Customs and Rights

- Low Health Consciousness
- Less Media Coverage
- Less spectators interest
- Lack of Incentives & Career

Special consideration (Menarche and menstrual dysfunction)

Women undergoes many physiological and psychological changes in their life which have to be accepted in a positive way.

Menarche

Menarche is the beginning of menstrual cycle or first menstrual bleeding in female, which is considered the central event of female puberty.

After the onset of menarche female experiences many Physiological and anatomical changes like increase body mass, secretion of estrogen, gain in height, widening of pelvic region etc.

Menstrual Dysfunction

It is a disorder or irregular condition of women's menstrual cycle. It also can defined as abnormal bleeding during menstrual cycle. Normal cycle varies from 21 to 35 days. This irregularities are generally higher in athletes then non-athletic women.

During the period of menarche and menstrual dysfunction female can participate in moderate physical activities without any complications.

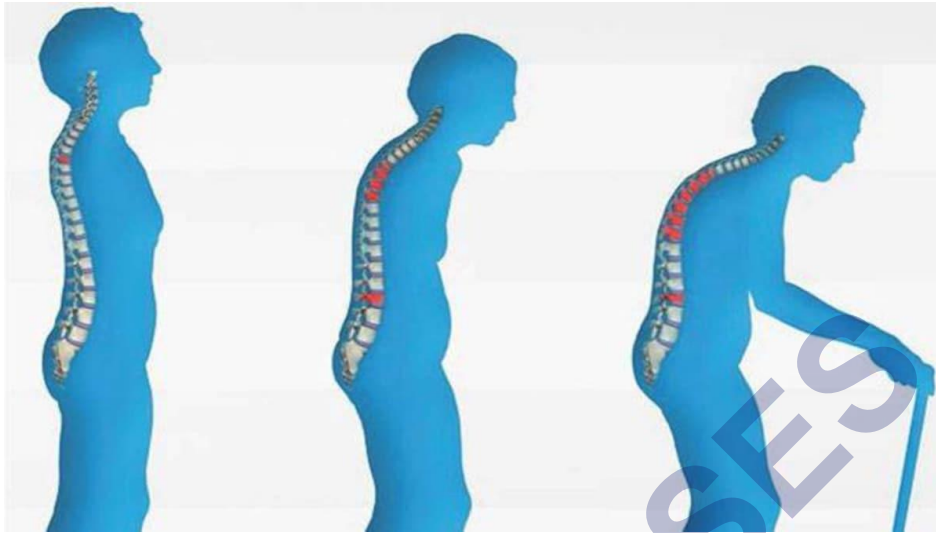
Heavy training should be done with special care of personal cleanliness and hygiene factors. If complications arise then women can consult with gynecologist.

Female Athlete Traid

It is the syndrome of female which includes Osteoporosis, Amenorrhea and Eating disorders. which is known as Traid. These traid can be serious with lifelong health consequences.

The symptoms of traid are fatigue, low body weight then required, frequent injuries, loss of fitness, low self-esteem, cessation of menstruation, etc.

Osteoporosis



It is weakening of bone due to loss of bone mineral density. Low level of estrogen and poor nutrition especially lower calcium intake lead to Osteoporosis.

Causes

- Insufficient calcium and vitamin D in diet
- Hormone level decrease
- Menstrual dysfunction for more than six months
- Eating disorders like anorexia and bulimia.

Amenorrhea

Amenorrhea is the absence of menstruation cycle. It is often defined as missing one or more menstrual periods.

Amenorrhea also refers to the absence of menstruation in someone who has not had a period by age 15.

Causes

Main causes of primary amenorrhea relate to hormone levels, although anatomical problems also can cause amenorrhea.

Eating Disorder



Many girls or women try to lose weight by unethical ways in order to improve their performance or look good, which leads to serious health problems.

There are two types of eating disorders.

Anorexia Nervosa



It is an eating disorder which causes people to obsess about weight and what they eat. Anorexia is characterised by a distorted body structure, with an unwanted fear of being overweight.

People trying to maintain a below-normal weight through starvation or too much exercise.

Bulimia Nervosa



In this disorder female athletes eat excessive amount of food and vomit intentionally in order to not gaining weight.

It is a serious eating disorder marked by bingeing. Bulimia is a potentially life-threatening eating disorder.

People take dangerous steps to avoid weight gain like vomiting (purging), excessive exercising or fasting.

Important Questions

➤ Multiple Choice Questions:

Que. 1. Which type of motor development takes place in the skeleton of the body

- a) Gross motor development
- b) Fine motor development
- c) High motor development
- d) Small motor development

Que. 2. The first stage of motor development in a child is

- a) Early childhood
- b) Infant hood
- c) Adolescence
- d) Adulthood

Que. 3. The third stage of motor development in a child is between the age of _____, years and _____ years

- a) 12, 16
- b) 2, 6
- c) 1, 2
- d) None of this

Que. 4. Fine motor development uses the _____ muscles for carrying out _____ activities

- a) Small, posture and balance maintenance
- b) Larger, posture and balance maintenance
- c) Larger, precise
- d) Smaller, precise

Que. 5. Which of the following is not a factor influencing the motor development of a child

- a) Sensory integration
- b) Muscle Tone
- c) Confidence
- d) Endurance

Que. 6. _____ affecting motor development is also known as hereditary factors

- a) Nutritional factor
- b) Endurance factor
- c) Genetic factors
- d) Environmental factor

Que. 7. Which of the following factors is/are responsible for motor development

- a) Genetic factors
- b) Environmental factors
- c) Food and nutrition
- d) All the above

Que. 8. Which one of the following activities is related to fine motor development

- a) Speaking
- b) Running
- c) Hopping
- d) Swimming

Que. 9. Ball handling is an activity that starts in a child in the development stage called

-
- a) Infant Hood
 - b) Early childhood
 - c) Middle childhood
 - d) Late childhood

Que. 10. In which of the following age groups do children start to learn the value of their societies?

- a) 13-18 years
- b) 2-5 years
- c) 18-24 years
- d) 7-4 years

Que. 11. The transition period between childhood to adulthood is called

- a) Senescence
- b) Adolescence
- c) Early childhood
- d) Infanthood

Que. 12. Exercise to develop motor skills like jumping, hopping throwing, and catching is prescribed for children in

- a) Infanthood
- b) Adolescence
- c) Early childhood
- d) All of these

Que. 13. Exercise to develop gross motor skills like head control and sitting are prescribed for

- a) Infants
- b) Adults
- c) Adolescence
- d) Female sportsperson

Que. 14. The second stage of motor development in a child is between the age of --- years and _____ years.

- a) 2-16

- b) 2- 6
- c) 1-2
- d) 7- 12

Que. 15. Which one of the following exercises will be most appropriate for a 11-year-old child

- a) Twisting
- b) Cycling
- c) Pulling
- d) playing with high intensity outdoor games

➤ Very Short Question:

Que 1. Define Motor Development?

Que 2. What is Physical Activity?

Que 3. State Food Supplement?

Que 4. What do you mean Weight Training?

Que 5. Elucidate the meaning of Gross Motor Development?

Que 6. Define Fine Motor Development?

Que 7. Write the meaning of Quality of Life?

➤ Short Questions:

Que 1. Disadvantage of Weight Training in the children?

Que 2. Write the need of Food supplements?

Que 3. Write the Dis-advantage of Food supplements?

Que 4. Write the physical benefits of exercise on children?

Que 5. Explain the Physiological benefits of Physical exercise on children?

➤ Long Questions:

Que 1. Write the Advantages of Weight Training?

Que 2. Explain the Motor Development during the childhood?

Que 3. Write the role of Physical activities in improving Quality of Life among the children?

➤ Assertion & Reason Questions:

1. For two statements are given-one labelled Assertion and the other labelled Reason.

Select the correct answer to these questions from the codes (a), (b), (c) and (d) as given below.

Assertion (A) Lordosis is treatable by doing the bhujangasana and Tara son

Reason (R) These asanas strengthen the muscle and help in maintaining the balance of the body

(a) Both A and R are true and R is the correct explanation of A.

(b) Both A and R are true and but R is not a correct explanation of A.

(c) A is true but R is false.

(d) A is false, but R is true.

2. For two statements are given-one labelled Assertion and the other labelled Reason. Select the correct answer to these questions from the codes (a), (b), (c) and (d) as given below.

Assertion (A) Motor development refers to the development of a child's bone muscles and his or her ability to move around

Reason (R) Gross motor development involves the small muscles of the body especially during the movement of the fingers and hands.

(a) Both (A) and (R) are true and (R) is the correct explanation of (A).

(b) Both (A) and (R) are true, but (R) is not the correct explanation of (A).

(c) (A) is true, but (R) is false.

(d) (A) is false, but (R) is true.

✓ **Answer Key-**

➤ **Multiple Choice Answers:**

1. (a) Gross motor development
2. (b) Infant hood
3. (d) None of this
4. (d) Smaller, precise
5. (c) Confidence
6. (c) Genetic factors
7. (d) All the above

8. (a) Speaking
9. (b) Early childhood
10. (d) 7-4 years
11. (b) Adolescence
12. (b) Adolescence
13. (a) Infants
14. (d) 7- 12
15. (b) Cycling

➤ Very Short Answers:

1. Motor Development refers to the development of a child's bone, muscles and ability to move around any manipulate their movement.
2. Physical Activity is defined as any bodily movement, produced by skeletal muscles, requiring energy expenditure.
3. Food Supplement means Nutrients that is added to the diet to nourish body that are not getting in the regular diet. Food supplement include Vitamins, minerals, Fibres, Fatty Acids or Amino acids among other substances. They can be In the form of powder or tablet.
4. Weight Training means, those exercise that are designed to strengthen specific muscles by causing them to overcome a fixed resistance in the form of Barbells, Dumbles.
5. Gross Motor Development involves, the development of large muscles in the child's body such as sitting, walking, running, climbing, jumping etc.
6. Fine Motor Development involves, the small muscles of the body, specially in the small movements of Fingers and hand such as Writing, Holding, Catching, Smashing etc.
7. Good Quality of Life refers to a life style where a person can carry out their day to day activities comfortably without strain.

➤ Short Answer:

1.
 - a) **Risk of injury**:- Incorrectly and excessive weight training introduce injury and pain in the children.
 - b) **Less flexibility**:- Weight training reduces the level of flexibility because weight training mostly performs for the development of strength so children flexibility are negligible due to it.

- c) **Maturity:-** Children should not begin, weight training or any other workouts until they are physically and emotionally mature enough to handle it because unmaturation of children lead to serious, bony injury or deformities in the children.
 - d) **Growth of Children:-** Excessive Weight training may cause negative effects on the normal growth of children.
 - e) **Needs a Supporter:-** No child performs any Weight training or workout in case of absence of supporter.
2. Food supplements is an addition in diet intended to provide nutrition such as Vitamins, Fibres, Minerals, Amino acids and Fatty acids.

The advantages of Food supplement are:-

- a) Food supplements will provide the substances, their body needs, If the diet is incomplete.
 - b) Food supplements ensure they get the substances and vitamins in sufficient quantity against requirements.
 - c) Food supplements are the easy way to get nutrients as needed.
 - d) Food supplements provide instant energy in emergencies.
- 3.
- a) Overdose of Food supplement always risk for organic systems, they may lead to allergic shocks or other reactions.
 - b) Food supplements are very expensive so it is not possible for each family to buy.
 - c) Some body building supplements may contains steroids or like substances, those could lead to serious liver, heart, kidneys injury.
 - d) Weight loss supplements may contain numerous untested ingredients which creates risk for children.
 - e) The Possibility of contaminated Food supplement is very high so this great danger for children.
4. Physical exercise provide and opportunity for children to feel healthy and good, be active and have fun and express themselves.

Some of the physical benefits of exercise are:-

- a) **Health:-** Exercise encourages a healthy growth and development of children's body that includes developing coordination and movement control, feeling more energetic and maintaining a healthy body weight.
- b) **Mental Health:-** Exercise improves concentration skills and ability to manage anxiety and stress. It also helps children to feel more confident, happy and relaxed. It improves the Self-esteem and Self concept and brings the sense of belonging among the children.

c) **Social skills:-** The great way of developing social skills like coordination, cooperation, team work among the children. It also help developing leadership quality in them. Active children are less involved anti-social activities or criminal activities.

5.

a) **Strengthens the Heart and it's activity:-** Regular exercise improves the working capacity of heart by strengthening the heart muscles and saves the person from various heart diseases. It prevents sugar accumulation in the blood and reduces the risk of diabetes. It regulates the blood pressure and increases the energy level of a person.

b) **Strengthens the Bones and muscles:-** Regular exercise enhances the bones mineral density and also keeps them stronger. It is important for growing children to have stronger bones, even the muscles become stronger through regular exercise.

c) **Keeps veins and arteries clean:-** Exercise helps to enhance blood flow in the body. It helps in reducing harmful cholesterol and fats from the child's body. It increases the flexibility of blood vessels and reduces extra weight.

➤ Long Answer:

1.

a) **Improve the posture and range of motion:-** Weight training helps to develop correct posture and extension, contraction of muscles leading to increase range of movement.

b) **Increase muscles strength, bone density and endurance:-** Resistance training can improve bone density and muscles mass. Due to the more muscles mass, the tolerance power is increased and improves endurance of the system.

c) **Protection against the injury:-** Weight training, improves physical activity, system of the body and reduces risk of injury.

d) **Promote health blood pressure and Cholesterol level:-** Physical exercise with the resistance training decreases bad cholesterol level and increases good cholesterol. It also improves blood circulation, which is turn maintains a healthy blood pressure.

e) **Improves immune system function:-** With the proper digestion, release of enzymes, Absorption of nutrients, release of toxic substances and healthy functioning of body Organs, the immune system functioning is improved and the body become capable of fighting against diseases and infections.

f) **Improves Psycho-social well being:-** A child with the well shaped healthy body with more potential to work is better accepted by society. A well maintained healthy physique makes a child more confident or raise his/her self esteem.

2. Motor development means "The development of movement and various motor abilities from birth to death". Motor development is a progressive change in movement throughout the life cycle.

As a matter of fact, the ability to move is essential to human development various motor movements or motor skills are essential for everyday life activities such as walking, sitting, running, jumping, catching or holding, throwing etc. Motor development in children.

Early childhood:- The period of early childhood starts from the second year and continue till the sixth year. The motor development during this periods takes place rapidly. It is know as pre-school years.

- a) In this period, a child becomes perfect in various fundamental movements such as Running, Jumping, throwing & acquires the ability to unite or combine.
- b) Children stride length increases and they develop a more mature running pattern.
- c) Proficiency in climbing on ladder become efficient.
- d) To hope and gallop skillfully.
- e) Fine eye-hand coordination.

Middle childhood:- The period of middle childhood starts from 7th year and continues up till 10th year. During this period the changes, which takes place are –

- a) Children become more agile
- b) Strong desire to engage in various physical movements and activities.
- c) Good eye-hand-leg coordination.
- d) Better in balance and postures.
- e) Motor skills are perfected and stabilized.
- f) Coordinative abilities develop at the higher level, while the flexibility develops at the lower level.

Late childhood:- The period of late childhood begins from 11th year and continues too 12th year or till the beginning of sexual maturation process. The no of changes take place during this period area.

- a) Girls are temporarily taller and heavier than boys because of the earlier onset of puberty.
- b) Strength begins to differ among the boys and girls
- c) Most of the children are master to most complex motor skills.
- d) They learn strategies and more complex combination of motor skills.
- e) Running and jumping movements, qualitatively and quantitatively develop at the faster rate. Coaches and teachers of physical education should continue to encourage skill development with an increasing stress on strategies and tactics.

3. Physical activity improved Mental health:

- a) **Mental wellness:-** Physical activity can relieve tension, anxiety, depression and anger.
- b) **Improves memory and active mind:-** Exercise increases the flow of oxygen, which directly Effects the brain. Mental brilliance and memory can be improved with Physical Activities.
- c) **Improves Mental activities:-** Regular Physical activities help in keeping the thinking Learning and judgement skills sharp. It can also reduce the risk of darker aspect of life.

Physical activity improves social health:

- a) Physical activity help to improve self images.
- b) **Promote enthusiasm and optimism:-** Physical activities help a child to promote enthusiasm and optimism for better social recognition in the peer group.

Physical activity improves Physical Health:

- a) **Stronger immunity:-** It enhances child's immune system and decreases the risk of developing any chronic illness and disease associated with the age and maintains quality of life.
- b) **Improves the heart activities and heart chronic diseases:-** Physical activities help delay or prevention of heart chronic illness by improving the working capacity of heart such as controlling the blood pressure, good cholestrol, Controlling 2 types of diabetes.
- c) **Strengthens bones and muscles:-** Regular muscle strengthening activities help to increase or maintain the muscle mass and strength. It also helps in improving healthy and flexibility of joints. Regular physical activities helps with the bones and joints of the body.
- d) **Maintain healthy weight:-** Regular physical activities helps with digestion and promotes regular movements. It also rises the metabolism and helps to loose extra weight easily.
- e) **Prolonged Optimal Health:-** Regular physical activity improves the strength, stamina and ability of organic system in the children.

➤ **Assertion and Reason Answers:**

1. (d) A is false, but R is true.
2. (c) A is true but R is false.