

# PHYSICAL EDUCATION



## 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 muscle 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 happen 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, Ardhamatseyendra 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 be defined as abnormal bleeding during menstrual cycle. Normal cycle varies from 21 to 35 days. These irregularities are generally higher in athletes than 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. This is known as Traid. These traids can be serious with lifelong health consequences.

The symptoms of traids 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 tries to loose weight by unethical way 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.