

Sports Medicine and Athletic Care

Concept and Significance

Sports medicine

- Sports medicine is a branch of medicine that deals with Physical Fitness, treatment and prevention of injuries related to sports and exercise
- **Sports medicine, also known as sport and exercise medicine (SEM), is a branch of medicine that deals with physical fitness and the treatment and prevention of injuries related to sports and exercise.**

CONCEPT OF SPORTS MEDICINE

Sports medicine is a broad and very inclusive term that involves a variety of medical as well as paramedical personnel including exercise physiologists, kinesiologists, athlete trainers, physical therapists, physical educators and many more as they are involved with various aspects of physical activities and athletes.

Significance/Importance of Sports medicine

1. Talent Identification.
2. Formation & Evaluation of Physical Education Program.
3. Development of field and laboratory tests (Fat %, lung capacity, heart volumes etc).
4. Prevention of accidents & injuries.
5. Provides sound principles for sports training.
6. Treatment of sports injuries.

7. Provides guidelines on drugs and doping
8. Detection of drug use in sports
9. Provides guidelines and principles of exercise for different age groups.
10. Tells about the right food, nutrition and supplements.
11. Effect of environment
12. Warming and cooling principles
13. Sports kit, guards and protector

Factors causing Injuries

- Muscle imbalances
- Weakened muscles, bones, tendons, or ligaments
- Fatigue
- Previous injury
- Increase in activity or mileage
- Change in playing surface
- **Poor technique**
- **Impact**

General Principles of Prevention of Injuries

Physical Conditioning

1. Strength
2. Balance
3. Flexibility
4. Endurance

- Adequate warm-up
- Adequate stretching
- Use of appropriate equipment
- Appropriate Training Methods
- Correct training
- Correct biomechanics
- Adequate psychological preparation
- Adequate diet and nutrition
- Regular pre-season medical assessment
- Rest and Recovery

- Dehydration
- Change in or poor equipment
- Heat-related
- Change in climate
- Poor mechanics
- Overtraining
- Lack of nutrients
- Functional discrepancies
- Structural discrepancies