

**MARUDHAR KESARI JAIN COLLEGE FOR WOMEN, VANIYAMBADI**

**PG AND RESEARCH DEPARTMENT OF FOODS AND NUTRITION**

**CLASS: I B.Sc NUTRITION, FOOD SERVICE MANAGEMENT AND DIETETICS**

**SUBJECT CODE: 23USNU14**

**SUBJECT NAME: WOMEN'S HEALTH AND WELLNESS**

## **SYLLABUS**

### **UNIT-II**

**Physical Health - Significance of body weight and body composition parameters, Benefits of aerobic, flexibility and strength training exercises on general health, bone health, and risks associated with NCD's. Yoga and Fitness practices- benefits for a holistic life.**

## **UNIT-02**

### **Physical Health**

Physical health can be defined as the normal functioning of the body. Representing one dimension of total well-being, it's about how your body grows, feels and moves, how you care for it, and what you put into it.

### **SIGNIFICANCE OF BODY WEIGHT**

Not only is a healthy weight crucial for maintaining physical fitness, but it keeps you at low risk for a variety of diseases. An overweight person is at a higher risk of developing serious health issues, such as: Diabetes (Type 2) High blood pressure.

### **WHAT IS BODY COMPOSITION?**

The body's relative amounts of fat and lean body tissue (or fat-free mass  
– FFM

Body composition is a term used often by doctors and health professionals. It refers to the percentage of fat, bone, and muscle in your body. Doctors use body composition to see if you're at a healthy weight for your individual body.

### **Components of FFM include:**

Muscle

Bone

Water

Organ tissues

### **COMPONENTS OF BODY FAT**

**Total Body Fat = Essential fat+ storage fat**

### **ESSENTIAL FAT**

- Required for normal physiological function
- Consists of fat within:
- Major organs
- Muscles
- Central nervous

### **ESSENTIAL FAT**

Accounts for:

- 3-5% total body weight in males
- 8-12% total body weight in females

### **STORAGE FAT**

Nonessential fat stored as adipose tissue near the body's surface

### **PERCENT BODY FAT (% BF)**

- Percentage of total body weight
- represented by fat
- Primary index used to evaluate body
- composition
- Several methods are used to measure it

### **PURPOSES OF EVALUATING BODY COMPOSITION**

- To help assess health risks and determine needed behavior changes for optimal health
- To help athletes determine the best body composition for performance in their respective sport

### **EFFECTS OF TOO MUCH/LITTLE BODY FAT**

- Excessive body fat can increase risk of chronic diseases, such as:
- Cardiovascular disease

- Hypertension
- Type 2 diabetes
- Cancer
- Extremely low levels of body fat can
- result in reproductive, circulatory, and
- immune disorders
- Nieman, D.

## **METHODS OF ASSESSING BODY COMPOSITION**

### **ASSESSMENT METHODS**

- Height, Weight, BMI
- Waist-to-Hip ratio (and body girth measurements)
- Skinfold measurements
- Hydrostatic (underwater) weighing
- Air displacement plethysmography
- Bioelectrical impedance analysis (BIA)
- Dual energy X-ray absorptiometry (DEXA)

### **METHODS OF ASSESSING HEIGHT**

- Best measured using a stadiometer
- Ensure the subject:
- Removes shoes
- Stands straight up with heels together
- Holds deep breath during measurement

### **BENEFITS OF AEROBIC**

The fitness contributes of the aerobic activities discussed in this chapter vary according to the specific activity and the individual. As noted previously, the health – related components of physical fitness are cardiorespiratory endurance, muscular strength and endurance, muscular

flexibility and body composition. although accurately assessing the contributes to each fitness vided in instead of a single rating or numbers , ranges are given for some of the catogries because the beneficial derived are based on the persons effort while practicing in the activity.

## **FLEXIBILITY**

### **MUSCULAR FLEXIBILITY**

The overload and specificity of training principles apply to development of muscular flexicibility . to increase the total range of motion of a joint the specific muscles surrounding that joint have to be stretched progressively beyond their accustomed length. The factors of mode, intensity, repetition and frequency of exercise also can be applied to flexibility programs .

### **DESIGNING A FLEXIBILITY PROGRAM**

When designing a flexibility program use the FITT Principle (Frequency, Intensity, Time and Type). Your flexibility program should include multiple stretching exercises that target all major joints, including the neck, shoulders, elbows, wrists, trunk, hips, knees, and ankles.

### **STRENGTH TRAINING EXERCISES**

**Two** strength- training programs , presented in appendix A have been developed to provide a complex body workout. Only a minimum of equipment is required for the first programs, strength-training exercise without weights. This programs can be conducted within the walls of your own house your body weight is used as the primary resistance for most exercise.

### **GUIDELINES AND FOR STRENGTH TRAINING**

Below are 13 strength training safety tips, guidelines, and instructions to help keep strength training exercises safe and effective.

#### **Warm-Up & Cool Down**

Before starting a strength training workout, warm up for about 5 minutes. Walking is an easy and effective way to warm up. And when you finish a session, cool down your muscles. Stretching is a great way to cool down.

#### **Correct Form / Proper Technique**

Use proper technique. Give more importance to correct form than weight. Do the exercise in slow, smooth movements. Using incorrect form not only slows down gains but can also lead to injuries.

The fitness training experts recommend that beginners should first practice a strength training routine either with no weight or very lightweight. They must focus on slow, controlled lifts and likewise slow & smooth descents.

### **Progress Gradually:**

In the beginning, you may only be able to lift a few pounds. It's ok. Soon your muscles, tendons & ligaments will get used to strength training exercises. If you keep doing weight (strength) training regularly, you will be surprised at how soon you progress. Once you can easily do 10-12 reps with a certain weight, increase the weight gradually.

### **BREATHING**

Don't hold your breath. The thumb rule is to exhale (breathe out) during the more challenging or exertion phase (when you work against resistance by lifting, pulling, or pushing) and inhale (breathe in) during the easier or relaxation phase.

Work out at the right tempo to maintain control rather than compromise strength gains through momentum. For example, count to three while lowering a weight, hold, and then count to three while raising it to the starting position.

### **MAINTAIN CORRECT FORM**

Throughout the movement, focus on maintaining correct posture & body positioning (form) because the risk of injuries increases when you use an incorrect form, wrong posture, or poor technique.

Always choose weights according to your capabilities. Reduce the weight or stop if you feel the weight is too heavy or getting out of control.

### **SELECTION & PROGRESSION OF WEIGHT**

The right weight for you depends on your fitness & strength levels, plus the specific exercise you will do. Select a weight that tires out the targeted muscles by the last 2-3 reps but allows you to sustain good form. If you cannot do the last 2-3 repetitions, go for a lighter weight. On the other hand, if it feels too easy to complete all the reps, then add weight (about one to two pounds for arms, two to five pounds for legs); alternatively, increase the number of reps or add one more set of reps (up to three sets in total) to your workout session.

### **GOOD CONTROL**

**Don't use momentum to swing** at any time through the entire range of motion. The movements should always be smooth without any jerks.

## **RECOVERY TIME**

Strength /weight/ resistance training leads to teeny tears in muscle tissues. These tears don't harm. On the contrary, muscles gain strength as the tears knit up. A good thumb rule is to allow your muscles a minimum of 48 hours to repair before working for the same muscle group again in the next strength training session.

## **DON'T OVER DO**

Work on all the major muscles of your body 2 or 3 times a week. You can either do one full-body strength workout 2 or 3 times per week or divide your strength training workout routine into lower & upper body components. In the latter case, make sure you perform each component 2 or 3 times a week.

I prefer to do one body part in a day: Chest (Monday), Back (Tuesday), Biceps (Wednesday), Shoulders (Thursday), Triceps (Friday) & Legs (Saturday), and rest on Sunday. You may change the order.

## **EXERCISE AND BONE HEALTH**

Most people are familiar with many of the benefits of exercise, such as improving muscle strength and endurance, reducing the risk for heart disease and stroke, and preventing obesity. Perhaps not as well understood is the importance of regular physical activity in building and maintaining healthy bones. Inactivity causes loss of bone!

## **EXERCISES FOR STRONG BONES**

There are many different types of exercise and they all offer health benefits. The two types that are most effective for building strong bones are weight-bearing exercise and strength-training exercise. Exercises to improve bone strength are site-specific. For example, walking can improve bone strength in the legs and spine but not in the wrist.

Postural stretching and strengthening can help prevent or decrease the amount of upper spine slumping seen in many older people. Leaning over to tie your shoes or sweeping and mopping can lead to spine fractures in people at high risk of spine fracture. Try to maintain good spine posture with all your activities.

## **WEIGHTBEARING EXERCISE**

Weight bearing describes any activity you do on your feet that works your bones and muscles against gravity. When your feet and legs carry your body weight, more stress is placed on your bones, making your bones work harder. Weight-bearing exercise after young adulthood can help prevent further bone loss and strengthen bone.

### **Examples of weight bearing exercise include:**

- Brisk walking and hiking

- Jogging/running
- Dancing
- Jumping rope
- Hopscotch
- Tennis, badminton, ping pong, and pickleball
- Team sports, such as basketball, soccer, and volleyball
- Stair climbing

### **GENERAL HEALTH ON EXERCISE**

- Brisk walking or jogging.
- Yard work (mowing, raking)
- Dancing.
- Swimming.
- Biking.
- Climbing stairs or hills.
- Playing tennis or basketball.

### **NON-COMMUNICABLE DISEASES(NCD)**

Non-communicable diseases are diseases that are not spread through infection or through other people, but are typically caused by unhealthy behaviours. They are the leading cause of death worldwide and present a huge threat to health and development, particularly in low- and middle-income countries.

### **CARDIOVASCULAR DISEASE**

Cardiovascular diseases account for the most non-communicable disease deaths. They include heart attacks and strokes.

### **DIABETS**

Diabetes is a chronic disease that occurs when the pancreas does not produce enough insulin or when the body cannot effectively use the insulin it prevents. It's a major cause of blindness, kidney failure, heart attacks and strokes. Unhealthy diets, physical inactivity and tobacco use are all major contributing factors to diabetes.

### **PREVENTABLE DISEASE**

The burden of cancer continues to grow globally, and many low- and middle-income countries do not have health systems that are prepared to manage this burden. That means that a significant number of patients worldwide do not have access to quality diagnosis and treatment.

### **CHRONIC RESPIRATORY DISEASE**



ome of the most common respiratory diseases are chronic obstructive pulmonary diseases and asthma. These conditions affect the airways and other structures of the lungs. Risk factors for chronic respiratory diseases include smoking and air pollution.

### **MENTAL HEALTH CONDITION**

The COVID-19 pandemic has raised further concerns about the mental health of a generation of children, but the pandemic represents the tip of the iceberg. Around the world, mental disorders are a significant and often ignored cause of suffering that interfere with children's and young people's health and education and their ability to reach their full potential.

### **INJURIES**

Unintentional injuries, such as road traffic crashes, drowning, falls, poisonings and burns and scalds, are the leading cause of death for children and adolescents worldwide.

### **YOGA**

yoga is an excellent stress – coping technique .yoga is a school of thought in the hindu religion that seeks to help the individuals attain a higher level of spiritually and peace of mind. Although its philosophical roots can be continued spiritual yoga is based on principles of self care

yoga practioners adhere to specific code of ethics and a system of mental and physical exercise that promote control of the mind and the body. In western countries, many people are mainly familiar with the exercise portion of yoga. This system of exercisecan be used as a relaxation technique for stress management. The exercise include a combination of postures, diaphragmatic breathing muscle relaxation and meditation that help buffer the biological effects of stress.

Western interest in yoga exercise gradually developed over the last century, particularly Since the 1970s people purpose yoga exercise for their potential to dispel stress by raising self estreem, clearing the slowing respiration promoting neuromuscular relaxation, and increasing body awareness.

### **THE EFFECTS OF YOGA ARE, BOTH, ON THE PHYSICAL AND MENTAL LEVEL**

#### **PHYSICAL LEVEL**

- An improved blood circulation

- A stronger immunesystem
- Improved cardiovascular system, lymph system & respiratory system
- Less fatigue
- Balanced cholesterol level

### **MENTAL LEVEL**

- A peaceful mind complements a healthy body. Yoga releases the toxins that get accumulated in the cells of our body due to everyday stress. This makes the mind more calm and peaceful.
- By regular yoga practice, you also start to burn unnecessary fat, so your cholesterol level is balanced. Another beautiful thing about the yoga practice is the feeling of freedom you get in the body and the mind as you become more centered, strong and flexible.

### **FITNESS TO PRACTISE**

Fitness to practice is the ability to meet professional standards; it is about character, professional competence and health. According to the Health and Care Professions Council (HCPC), someone is fit to practice if they have "the skills, knowledge, character and health to practice their profession safely and effectively

### **YOGA AND PHYSICAL FITNESS**

Yoga has preventative and healing benefits for both mind and body. From a physical perspective, practicing yoga regularly can help improve most physical functions, including **muscular strength** and **endurance**, mobility and flexibility, and hormone regulation. Yoga can even reduce inflammation associated with chronic health conditions such as obesity, heart disease, and various forms of cancer.

### **YOGA, MENTAL FITNESS, AND STRESS REDUCTION**

Practicing yoga has been reported to improve symptoms of depression, sadness, and anxiety. It can also improve emotional regulation and reduce stress. Yoga offers you a chance to slow down and reconnect with your physical and mental reactions to stress, which in turn can give you more of an opportunity to manage your body's (and mind's) responses. Yoga by itself will not cure these conditions. But reducing the symptoms can help open the door for other complementary treatments to be more effective.

## **Tips to get started**

Whether you're a beginner or an expert, here are some tips for effective yoga practice:

- **Go slowly.** If you're practicing in the morning, take your time and ease into the positions so your body can warm up.
- **Listen to your body.** If you feel pain or "overstretching," stop. You've reached your "full expression." If you're having a hard time or breathing problems, move into Corpse Pose: Lie flat on your back with your hands facing upwards until you feel better.
- **Watch and learn.** If you're a beginner practicing alone, it might help to look at some videos first and become familiar with the various moves. If you think you'd like to do more, try finding a class that's appropriate for your level.
- **Ask your healthcare provider or a yoga instructor.** Discuss the different types of yoga, so you can choose what's right for you. This is especially important for those with heart conditions, older adults, and women who are pregnant.

## **HOLISTIC LIFE**

"Holistic" means whole, and in the human sense, that includes the three layers of being that we all are made of:

- Body
- Mind
- Soul/Spirit

"Lifestyle" means the way you live your life, the habits and routines that make up your daily existence. If you do the same things every day in a certain way, that is what creates a lifestyle.

### **This can include:**

- Habits
- Morning routines
- Nighttime routines
- The diet you eat regularly
- Exercises you do regularly
- Hobbies you spend time doing
- Values by which you live your life

## **HOLISTIC LIFE BENEFITS**

Once someone starts to implement healthy habits, routines, food, exercises, hobbies, and values into their lifestyle, they will start to notice results and reap the benefits. These will vary from person to person, of course, because our bodies, environments, and situations are different. This is why not everyone gets the same results from eating the same diet, for example.

## **PHYSICAL BENEFITS**

- Less chances of developing disease and chronic illnesses
- Reduced symptoms of pre-existing health conditions
- Weight/fat loss
- More muscle tone
- Better sleep
- Better digestion

## **MENTAL BENEFITS**

- Less stress
- Less anxiety and/or panic attacks
- Less depression
- Less chances of developing mental illnesses
- Clearer thinking and easier decision making
- Balanced moods
- Higher quality relationships that are fulfilling

## **SPIRITUAL BENEFITS**

- Deeper connection to your higher self
- Deeper connection to nature
- Deeper connection to the Universe
- Deeper connection to the higher power of your choice
- Increased life satisfaction by living your soul's purpose

## **REFERENCE**

**TEXTBOOK: GUIDE TO PHYSICAL FITNESS AND WELLNES(W.K HOEGER.  
SHARON.A HOEGER)**

**TEXTBOOK:DIETETICS(SRILAKSHMI) EDITION 9<sup>TH</sup>**