

PERSONAL FITNESS

IMPROVING YOUR HEALTH
STATUS

4 COMPONENTS OF FITNESS

- **CARDIORESPIRATORY ENDURANCE**
 - ABILITY TO MAINTAIN MODERATE-INTENSITY WHOLE-BODY ACTIVITY FOR EXTENDED TIME PERIODS
- **FLEXIBILITY**
 - RANGE OF MOTION IN A JOINT(S)
- **MUSCULAR STRENGTH & ENDURANCE**
 - MAXIMUM FORCE & REPEATED HIGH INTENSITY MUSCLE CONTRACTIONS
- **BODY COMPOSITION**
 - RATION OF FAT WEIGHT TO TOTAL BODY WEIGHT

PHYSIOLOGICAL BENEFITS OF EXERCISE

- **IMPROVED CARDIOVASCULAR ENDURANCE**
 - INCREASES HDL, REDUCES LDL CHOLESTEROL
 - PREVENTS HYPERTENSION
- **IMPROVED OXYGEN UPTAKE**
- **INCREASED METABOLIC RATE**
- **IMPROVED QUALITY OF LIFE & LIFE SPAN**
- **IMPROVED IMMUNITY TO DISEASE**
- **IMPROVED WEIGHT CONTROL**
- **IMPROVED BONE MASS**



PSYCHOLOGICAL BENEFITS

- **ABILITY TO MANAGE STRESS**
 - "BURN OFF" CHEMICAL BY-PRODUCTS RELEASED BY THE NERVOUS SYSTEM
- **IMPROVE SELF-ESTEEM**
- **ELEVATE MOOD**
 - RELEASING ENDORPHINS INTO THE BLOODSTREAM
- **IMPROVE SLEEP**
 - PHYSICAL FATIGUE VS. OTHER

AEROBIC FITNESS

- 70% OF MAX HR FOR 20-30 MINUTES, AT LEAST 3x PER WEEK (PROGRESS TO 5)
- TOTAL BODY ACTIVITY
- "LSD" (LONG SLOW DISTANCE)
- BEGIN SLOWLY USE PROGRESSION
- KEYS: FREQUENCY
 - DURATION
 - INTENSITY
- TEXT: P 284, FIGURE 11.1



EXERCISE INTENSITY

- **PROLONGED MODERATE INTENSITY AEROBIC EXERCISES**
- **TARGET HEART RATE**
- **PERCEIVED EXERTION(BORG SCALE)**
 - 14-16: SOMEWHAT HARD TO HARD
- **TALK TEST**

EXERCISE DURATION

- TO BURN FAT:
 - MODERATE INTENSITY! AS INTENSITY INCREASES, FAT BURN DECREASES.
- GOAL: BURN 300-500 CALORIES PER SESSION; WEEKLY = 1,500-2,000 CAL'S



All workouts should begin with stretching

FLEXIBILITY

- STATIC STRETCHES (3-5 DAYS PER WEEK), P 294, FIG. 11.3
- ALL MAJOR MUSCLES
- HOLD STRETCH 6-10 SECONDS (UP TO 30-60 SECONDS)
- BEFORE & AFTER
- TAI CHI & YOGA



MUSCULAR STRENGTH & ENDURANCE

- ESSENTIAL FOR "TOTAL FITNESS"
- PRINCIPLES
 - TENSION: TO DEVELOP STRENGTH, DEVELOP TENSION IN THE MUSCLE (WEIGHT TRAINING)
 - OVERLOAD INCREASE TENSION IN MUSCLES
 - SPECIFICITY: SPECIFIC RESPONSE WITH TARGETED ACTIVITY



Cross-training offers more benefits than a single exercise or activity

CLOTHING / GEAR / AREA

- FOOTWEAR: P 300-1, FIG. 11.6
 - FOOT COLLIDES WITH GROUND WITH FORCE 3-5X THE RUNNER'S WEIGHT. CUMULATIVE: 450,000 LBS. PER MILE
- CLOTHING
- SAFE EQUIPMENT
- ENVIRONMENT FOR ACTIVITY

INJURY PREVENTION

- **OVERTRAINING AND OVERUSE**
 - SEE OVERUSE INJURIES: PP 302-3
- **TREATMENT**
 - REST
 - ICE (20 MIN EVERY HR., 24-72 HOURS)
 - COMPRESSION
 - ELEVATION
- **EXERCISING IN THE HEAT: FLUID & MODERATION**
 - HEAT EXHAUSTION: SIGNIFICANT DEHYDRATION
 - HEAT STROKE: MORE SERIOUS - DEADLY

CONSUMING & EXPENDING ENERGY

WEIGHT CONTROL & EATING DISORDERS

IDEAL WEIGHT

- IDEAL
 - MEN: 11 AND 15 %
 - WOMEN: 18 AND 22%
- OBESITY
 - MAN: EXCEEDS 20%
 - WOMAN: EXCEEDS 30%
- P. 256-7, TABLE 10.1 - 10.2



TECHNIQUES FOR ASSESSING

- HYDROSTATIC WEIGHING: MOST ACCURATE
- PINCH AND SKINFOLD TESTS
- BODY MASS INDEX (BMI) (AGES 20-29)
 - DIVIDE YOUR WEIGHT IN KILOGRAMS BY THE SQUARE OF YOUR HEIGHT IN METERS
 - $BMI = \frac{WT.(KG)}{[HT.(CM)]^2}$ (DIV. HT. IN INCHES BY 39.4, THEN SQUARE THE RESULT)
 - FEMALES DESIRABLE = 21 TO 23
 - MALES DESIRABLE = 22 TO 24
 - BMI ABOVE 27.8 FOR MEN & 27.3 FOR WOMEN = INCREASED HEALTH RISKS

WEIGHT CONTROL QUESTIONS

- DO WE EAT TOO MUCH OR EXERCISE TOO LITTLE?
- WHY DO FEWER THAN 5% OF ALL PEOPLE ACHIEVE PERMANENT SUCCESS ON A WEIGHT LOSS PROGRAM?

HEREDITY

- * GENETICALLY INHERITED BODY TYPES
 - * ECTOMORPHS: TALL, SLENDER
 - * ENDOMORPHS: ROUND, SOFT
 - * MESOMORPHS: MUSCULAR
- * GENETICS
 - * TWINS RAISED APART THAT HAD OBESE PARENTS BECAME OBESE
- * LIFESTYLE OR GENETICS
 - * DIET & EXERCISE CAN MODIFY GENETIC EFFECTS

FOOD INTAKE & METABOLISM

- BROWN FAT CELLS
 - SPECIALIZED FAT CELLS THAT AFFECT ABILITY TO REGULATE FAT METABOLISM
- MAY EAT FOR REASONS OTHER THAN HUNGER
- SATIETY: FULLNESS AFTER EATING
 - VARIES DEPENDING ON CONDITIONING
- HUNGER
 - RESPONSE TO NUTRITIONAL NEEDS
- APPETITE
 - LEARNED RESPONSE TO FOOD

DEVELOPMENTAL FACTORS

- HYPERPLASIA
 - EXCESSIVE # OF FAT CELLS
- HYPERTROPHY
 - ABILITY OF FAT CELLS TO SWELL
- SET POINT THEORY
 - BODY ACTS TO MAINTAIN BODY FAT
- BASAL METABOLIC RATE
 - ENERGY BODY USES AT COMPLETE REST
 - 60-70% OF ALL CONSUMED CALORIES
 - SLOWS 1-2% PER YEAR AFTER 30
 - INFLUENCED BY BODY COMPOSITION

FACTORS TO CONSIDER

- PHYSICAL ACTIVITY MAKES A DIFFERENCE
- ONE LB OF FAT = 3,500 CAL'S EXTRA
- LOSE 1 POUND OF FAT = <3,500 CAL'S
- STRENGTH EXERCISE IMPROVES MUSCLE TONE
 - INCREASES METABOLISM AND THEREFORE ABILITY OF BODY TO BURN FAT
- A CUMULATIVE EFFECT!

EXERCISE & WEIGHT LOSS

- RESTING METABOLIC RATE
 - 90% OF CALORIES BURNED
- EXERCISE METABOLIC RATE (EMR)
 - 10% OF CALORIES BURNED
 - INCREASE EMR - INFLUENCE WEIGHT LOSS!
 - BIGGER CONTRIBUTION TO BMR BY USING LARGE MUSCLE ACTIVITY

CHANGING TRIGGERS AND SUBSTITUTE ACTIVITIES

- TURN OFF DISTRACTIONS
- REPLACE SNACK BREAKS W. EXERCISE
- EAT SLOWLY
- DO NOT EAT UNTIL HUNGRY
- SMALLER PORTIONS - PLATES
- MAKE "GOOD FOOD CHOICES" EASIER
- EAT ONLY IN THE KITCHEN

MORE SUGGESTIONS

- DRINK WATER BEFORE EATING
- GO "OUT" FOR DESSERTS
- DO NOT SKIP MEALS!
- NO SERVING DISHES ON THE TABLE
- CUT BACK ON GRAVIES, SAUCES, ETC
- ENTRÉE PREPARATION
 - BROILED, STEAMED, BAKED, GRILLED, POACHED, OR ROASTED
- FRESH FRUIT & VEGETABLES!

NUTRITION PLAN FOR WEIGHT LOSS

- MODERATE GOALS (1-2 LB. PER WEEK)
- HEALTHY REWARDS
- GO BACK TO YOUR PLAN
- REPUTABLE SOURCES
 - REGISTERED DIETITIANS, PROFESSIONALS
- AVOID QUICK LOSS PROGRAMS
- SOUND DIETARY GUIDELINES