Chapter 2
Well-Being of the Paramedic

Lesson 2.1
Physical Well-Being and Physical Fitness
Learning Objectives

• Describe components of wellness and associated benefits.
• Discuss the paramedic’s role in promoting wellness.
• Outline the benefits of specific lifestyle choices that promote wellness, including proper nutrition, weight control, exercise, sleep, smoking cessation.

Wellness Components

• Physical well-being
• Mental and emotional health

What is your favorite “stress food”? 
Physical Well-Being: Nutrition

- Nutrients
  - Foods that hold elements necessary for body function
  - Carbohydrates
  - Fats
  - Proteins
  - Vitamins
  - Minerals
  - Water

Carbohydrates

- Obtained primarily from plant foods
- Only important source of animal carbohydrates, lactose, milk sugar
- Plants store as starch
- Starch made up of granules enclosed by cellulose walls that swell, burst when cooked

Fats

- Contain mixture of saturated, unsaturated fatty acids
- Saturated fats: mainly meat, dairy products, some vegetable fats
  - Raise cholesterol levels by shutting down the process that normally removes excess cholesterol
Fats

• Unsaturated fats: subdivided into polyunsaturated, monounsaturated
• Polyunsaturated fats
  – Found in safflower, sunflower, corn, soybean, cottonseed oils, some fish
  – Help rid body of newly formed cholesterol
  – One form, omega-3 fatty acids, found mainly in cold-water fish, tuna, salmon, mackerel
  – All considered important for human health

Fats

• Monounsaturated fats
  – Liquid vegetable oils
  – Canola, olive oils
  – Decrease blood cholesterol levels
  – Trans fats

Fats

• Trans fats
  – Unsaturated fatty acids formed when vegetable oils are processed, made more solid or into more stable liquid
  – Present in wide range of foods made with partially hydrogenated oils, baked goods, fried foods, some margarine products
  – Occur naturally, low amounts in meats, dairy products
Proteins

• Made of hydrogen, O₂, carbon, nitrogen
• Most contain sulfur, phosphorus
• Vital for building body tissue during growth, maintenance, repair
• When digested, break down into amino acids

Proteins

• Essential amino acids needed for body growth and cellular life; are not made in body, obtained in food
• Nonessential amino acids not needed for body health, growth can be made in body
• Complete proteins contain all essential amino acids, found in meats, dairy products

Proteins

• Incomplete proteins are missing one or more essential amino acids; found in grains, vegetables
• Used as energy source, should be spared for important role in body health by sufficient intake of carbohydrates
Vitamins

• Organic substances, present in minute amounts in foods
• Crucial for metabolism
• Cannot be made in adequate amounts by body, gained through food, vitamin supplements

Vitamins

• Water soluble or fat soluble
• Vitamins C and B complex contain eight water-soluble vitamins
• Water-soluble vitamins cannot be stored in body, must come from daily diet
• Fat-soluble vitamins (A, D, E, K) can be stored in body, daily intake not required

Minerals

• Inorganic elements
• Play key role in biochemical reactions
• Calcium, chromium, iron, magnesium, potassium, selenium, sodium, zinc
• Come from diet
Water

- Most important nutrient
- Cellular function depends on fluid environment
- Composes 50% to 60% of total body weight
- Obtained through liquid consumption, fresh fruits, vegetables
- Also produced when food is oxidized during digestion

How does your favorite stress food fit into the nutrition categories?

Physical Well-Being: Diet

- Dietary recommendations made by
  - U.S. Department of Agriculture
  - U.S. Department of Health and Human Services
  - Food and Drug Administration
  - American Heart Association
  - National Institutes of Health
  - USDA
Does your average diet meet these guidelines? If not, in what areas do you need to make changes?

Food Guidance Pyramid
• Designed to educate public about lifestyle consistent with 2005 dietary guidelines for Americans
• Twelve sets of possible recommendations based on age, gender, activity level
• Stresses activity, moderation along with proper mix of food groups

Food Guidance Pyramid
• Contains six food groups
  – Grains, recommending half or more eaten as whole grains
  – Vegetables, emphasizing dark green, orange vegetables, dry beans, peas
  – Fruits, emphasizing variety; de-emphasizing fruit juices
  – Milk, including milk-based foods
  – Meat and beans, emphasizing low-fat, lean meats as well as peas, nuts, seeds
  – Oils
Food Guidance Pyramid

- Other categories
  - Physical activity
  - Discretionary calories from candy, alcohol, other foods

Diet: Weight Control

- Overweight people have higher risk of developing certain illnesses
  - High blood pressure
  - Type 2 Diabetes
  - Heart disease
  - Some cancers
Diet: Weight Control

• Eat right balance of foods
  – Moderation
  – Limit fat consumption
  – Exercise regularly

• Set realistic goals
  – Steady weight loss of ½ to 1 lb/week
  – 3,500 calories = 1 lb
  – 500 extra calories/day = 1 lb gain/week
  – 500 fewer calories/day = 1 lb loss/week
Diet: Weight Control

- Healthful lifestyle, diet
  - Balanced with proper nutrition, exercise
  - Variety of foods, low in fat, saturated fat, cholesterol
  - Plenty of grain products, vegetables, fruit
  - Avoid alcoholic beverages, consume in moderation
  - Have system for checking weight control progress
  - Make adjustments, seek professional advice if needed

What are the benefits of being physically fit while working as a paramedic?

Physical Fitness

- Helps you look, feel, do your best
- Varies from person to person
- Influenced by:
  - Age
  - Sex
  - Heredity
  - Personal habits
  - Exercise
  - Eating habits
Physical Fitness

- Benefits
  - Decreased resting heart rate, BP
  - Increased O2-carrying capacity
  - Enhanced quality of life
  - Increased muscle mass, metabolism
  - Increased resistance to injury
  - Improved personal appearance, self-image
  - Maintenance of motor skills

Cardiovascular Endurance

- Physical examination needed before starting fitness program
- Have fitness assessment performed by certified physical trainer
  - Purpose: to evaluate person's present physical condition
  - Creates baseline assessments for weight; body mass index; high blood pressure; heart disease (including family history); arthritis; other bone problems; muscular, ligament, tendon problems; and other known, suspected diseases
  - Helps establish heart rate target zone
Calculate your body mass index. Does it fall within the recommendations?

Which EMS activities might test your cardiovascular endurance?

How many minutes per week do you perform physical activities that raise your heart rate? What benefits does a paramedic gain by maintaining a high level of personal fitness?
Muscular Strength

• Part of fitness assessment tests and endurance
  – Ability of muscle to exert force for brief period

• Muscular endurance

• Ability of muscle or group of muscles to sustain repeated contractions or to continue applying force against fixed object

• Many exercises improve strength, endurance

Muscular Strength

• Training should consider isometric, isotonic exercises, resistance, repetitions, sets, frequency

• Isometric exercises
  – Do not result in any joint movement
  – Contraction performed against an immovable object (wall, door frame)
  – Do not significantly increase muscle bulk but do strengthen muscle at joint angle at which contraction is performed

Muscular Strength

• Isotonic exercises
  – Move joint through range of motion against resistance of fixed weight
  – Lifting barbell
  – Add muscle bulk by creating tension within muscle

• Resistance
  – Amount of weight moved, lifted during isotonic exercises
Muscular Strength

• Repetition
  – “Rep,” full execution of exercise from start to finish
• Set
  – Number of times exercise (rep) is done start to finish, one after another, without any rest time
• Frequency
  – Least number of workouts that will have positive effect on muscle strength, endurance

Muscular Strength

• Muscular flexibility
  – Ability to move joints, use muscles through their full range of motion
  – Lack of normal flexibility may lead to muscle strains, other injuries
  – Improved by stretching exercises
  – Must be done slowly, without bouncing motion
  – Mild intensity
  – Should not strain, hold breath, should not feel pain, discomfort
  – Exercise frequency should match individual’s activity level

Importance of Sleep

• Rejuvenates tired body
• Average adult needs 7–8 hours/day
• Rotating shifts, 24-hour shifts result in sleep deprivation, interrupts normal circadian rhythm
• Circadian, Latin for “about a day”
Circadian Rhythm

- Physiological ebb and flow of the body as it relates to the rotation of the earth
- Based roughly on the solar day as the earth rotates in its course around the sun
- Level of melatonin and cortisol affects the periods of sleepiness and wakefulness

Circadian Rhythm

- Release of these hormones is stimulated by the dark and is suppressed by light
- When the line between night and day is disrupted on an ongoing basis, irritability, depression, and illness can result

Circadian Rhythm

- Shift work studies by CDC, OSHA findings suggest sleep loss:
  - Makes it easier to fall asleep at inappropriate times
  - Affects performance on, off job
  - Can lead to serious injuries
  - Disrupts social, family life
  - Increases health risks for digestive problems, heart disease
**Circadian Rhythm**

- Other studies show people with disruptions in circadian rhythms because of extended work shifts have
  - Increased risk of motor vehicle crashes
  - Short-term decreases in cognition, neuropsychological performance
  - Decreased job satisfaction
  - Making errors, resulting in patient care litigation

Do you get enough sleep? If not, what strategies should you try in an attempt to increase your hours of sleep?

**Lesson 2.2**

*Disease and Injury Prevention*
Learning Objectives

• Identify risk factors and warning signs of cancer and cardiovascular disease.
• List measures to take to reduce the risk of infectious disease exposure.

Learning Objectives

• Outline actions to be taken following a significant exposure to a patient’s blood or other body fluids.
• Identify preventive measures to minimize the risk of work-related illness or injury associated with exposure, lifting and moving patients, hostile environments, vehicle operations, and rescue situations.

Cardiovascular Disease

• Accounts for more than 830,000 deaths each year in the United States
• Can be altered through healthful living
• Boost endurance, helps prevent disease
Cardiovascular Disease

• Prevention
  – Eliminate cigarette smoking
  – Control high blood pressure
  – Maintain favorable body fat consumption through regular exercise
  – Maintain good total cholesterol/high-density lipoprotein ratio
  – Monitor triglyceride levels

Cardiovascular Disease

• Prevention
  – Control diabetes
  – Avoid excessive alcohol intake
  – Eat healthful foods
  – Reduce stress
  – Obtain risk assessments periodically

What foods are high in fiber?
Cancer

• Includes more than 100 diseases affecting nearly every body part
• Potentially life threatening
• Main cause change, mutation in cell nucleus
• Most common, linked to one of three environmental risk factors: smoking, sunlight, diet

Cancer

• Prevention steps
  – Eliminate smoking
  – Make dietary changes
  – Limit sun exposure; use sunscreen
  – Get regular physical examinations
  – Pay attention to warning signs
  – Get a periodic risk assessment

Disease Transmission Prevention

• Daily practice priority
  – Concerns for personal health, safety
  – Be aware of common exposure sources
  – Use personal protection
  – Know what to do if exposure occurs
Disease Transmission Prevention

- Minimum personal protective equipment guards against spread
  - Disposable gloves when contact with blood, other body fluids likely
  - Masks, protective eye wear when blood splashing likely
  - Gowns protect clothing from spurting blood
  - HEPA (high-efficiency particulate air) filter, N-95 respirators when tuberculosis is confirmed, suspected

Exposure Sources

- Needle-sticks
- Broken, scraped skin
- Mucous membranes
  - Lining eyes, nose, mouth
  - Entry for infectious agents, microorganisms
- Practice universal precautions

Protection Guidelines

- Follow engineering, work practices
- Maintain good personal health, hygiene habits
- Maintain immunizations
  - Tetanus
  - Diphtheria
  - Polio
  - Hepatitis B
  - MMR
  - Influenza
Protection Guidelines

• Conduct periodic TB screening
• Practice body substance isolation
• Properly clean, disinfect, dispose of used materials, equipment immediately
• Use puncture-resistant containers; dispose needles, others sharp objects
• Separate, label all soiled laundry, equipment until items can be cleaned, disinfected properly

Documentation and Management

• If exposure to patient’s blood, body fluid
  – Immediately wash contact area thoroughly with soap, water
  – Report as soon as possible to receiving hospital, proper designated officer in local agency
  – Immediately document situation
  – Describe actions taken to reduce infection chances of infection
  – Comply with required reporting responsibilities, time frames

• If exposure to patient’s blood, body fluid
  – Cooperate with incident investigation
  – Be screened for antibody titers, potential infectious diseases
  – Obtain proper immunization boosters
  – Obtain full medical follow-up
What are the post-exposure follow-up procedures for your local hospital or EMS provider?

Injury Prevention

• Stay alert in hostile settings
• Prioritize personal safety
• Practice safe vehicle operations
• Use safety equipment, supplies

Injury Prevention

• Use proper body mechanics during lifting, moving
• Back injury is number one reason for leaving EMS profession
• Proper mechanics crucial
  – Help avoid personal injury
  – Avoid injury to partner, patient
Injury Prevention

• Guidelines when lifting, moving patients, equipment
  – Only move a patient you can handle safely; get additional help if needed
  – Look where you are walking, crawling
  – Move forward rather than backward when possible
  – Take short steps if walking

Injury Prevention

• Guidelines when lifting, moving patients, equipment
  – Bend at hips, knees
  – Maintain natural spine curvature when possible
  – Lift with legs, not back
  – Keep load close to body
  – Keep patient’s body in line when moving

Hostile Environments

• Responding to violent crimes
  – Murder
  – Rape
  – Robbery
  – Domestic violence
  – Terrorism acts
  – Aggravated assault
Hostile Environments

• Scene safety
  – Do not enter until scene is safe
  – Coordinate all actions with law enforcement
  – Follow protocols for establishing medical incident command
  – Plan entrance, escape routes
  – Stay alert, be prepared for the unexpected

Hostile Environments

• Safely managing violent scene requires special training
  – Unity among many emergency response agencies
  – Taking part in planning, training, practice sessions helps ensure personal safety

Rescue Situations

• Hazardous materials exposure
• Bad weather
• Extreme temperatures
• Fires
• Toxic gases
• Unstable structures
• Heavy equipment
• Road hazards
• Sharp edges
• Fragments
Rescue Situations

- Assess scene for hazards first
  - Take personal protective measures
  - Monitor scene constantly during operation
  - Follow proper use of protective gear, special training, safe rescue practices

Safe Vehicle Operation

- Factors affecting operation
  - Safe driving
  - Personal restraint use, all occupants
  - Safe, appropriate escort use to and from scenes
  - Adverse environmental conditions (inclement weather)

Safe Vehicle Operation

- Factors affecting operation
  - Using appropriate audible, visual warning devices
  - Proceeding through intersections safely
  - Parking at emergency scene
  - Following safe vehicle positioning strategies
  - Maintaining due regard for safety of all others
Is there any patient situation that would call for using unsafe vehicle operations? Keep in mind that this could risk the safety of those in the ambulance or in other vehicles.

Safety Equipment and Supplies

- Know proper use
- Use OSHA standards for protective clothing, equipment
  - Body substance isolation equipment
  - Head protection
  - Eye protection
  - Hearing protection
  - Respiratory protection
  - Gloves
  - Boots
  - Coveralls
  - Turnout coat, pants
  - Specialty equipment
  - Reflective clothing

Lesson 2.3

Mental and Emotional Health
Learning Objectives

• List signs and symptoms of addiction and addictive behavior.
• Describe guidelines for working effectively in a diverse workplace.
• Distinguish between normal and abnormal anxiety and stress reactions.

Mental and Emotional Health

• Factors
  – “Warning signs” that indicate potential problem
  – Signs, substance misuse
  – Health disorders caused by anxiety, stress
• Key to maintaining good emotional health
  – Realize value of having personal time
  – Connected with family, peers, community
  – Accept personal differences that make individuals unique

Substance Misuse, Abuse Control

• Health care workers, emergency responders, public service personnel, not immune
  – Studies found 8% to 12% of physicians are estimated to develop a substance use problem
  – 32% of nurses reported some abuse
  – 30% of firefighters, law enforcement reported problematic alcohol use
Substance Misuse, Abuse Control

• May lead to chemical dependency, addiction
  – Wide range of effects
  – Physical, mental health
  – Damage vital organs
  – Cancer
  – Increased risk of injuries
  – Mental impairment

Substance Misuse, Abuse Control

• Warning signs
  – Using to relieve tension
  – Using increasing substance amount
  – Lying about substance use
  – Avoiding discussion
  – Interfering with daily activities

Do you know anyone with these behaviors?
What actions can you take if you see a coworker displaying these behaviors?

Substance Misuse, Abuse Control

• Management methods depend on type being misused
  – Professional counseling
  – Physician-controlled drug therapy
  – Support programs

Smoking Cessation

• Major health hazard
  – Responsible for more than 438,000 deaths each year in the United States
• Health ramifications include increased risks of
  – Coronary heart disease
  – Myocardial infarction
  – COPD
  – Sudden death
  – Dying of various diseases
  – Miscarriage, premature birth, birth defects
Smoking Cessation

• Smokers often name many reasons for continuing smoking
  – Peer pressure
  – Stress relief
  – Weight control

• Most continue smoking or use addictive nicotine replacements
  – Tobacco stimulant
  – Other harmful chemicals

Smoking Cessation

• Many resources, programs available
  – Support groups, quit smoking campaigns
  – American Heart Association
  – American Cancer Society
  – American Red Cross
  – Government health agencies
  – Local health care organizations

Smoking Cessation

• Prescription, nonprescription drugs
  – Bupropion
  – Chantix
  – Wellbutrin
  – Dermal patches
  – Nicotine chewing gum
  – Decrease physical effects, smoking cessation
  – Help wean smoker off nicotine
Is anyone here a former smoker? If so, what measures did you take to try to quit and what finally worked?

Anxiety, Stress

- Anxiety
  - Worry, dread about future uncertainties
- Stress
  - Results from interaction of events that cause anxiety
  - Coping abilities of person
  - Can be positive
  - Usually thought, negative effect (fear, depression, guilt)

Anxiety, Stress

- Signs that a person may need stress management assistance
  - Disorientation, confusion, difficulty communicating
  - Difficulty remembering instructions
  - Difficulty maintaining balance
  - Easily frustrated, being uncharacteristically argumentative
  - Inability to problem-solve, difficulty making decisions
  - Unnecessary risk-taking
  - Tremors/headaches/nausea
  - Tunnel vision/muffled hearing
Anxiety, Stress

- Signs that a person may need stress management assistance
  - Colds, flu-like symptoms
  - Limited attention span, difficulty concentrating
  - Loss of objectivity
  - Inability to relax when off duty
  - Refusal to follow orders or leave scene
  - Increased use of drugs, alcohol
  - Unusual clumsiness

Personal Time, Meditation

- Personal time can boost mental, perhaps physical health
- Meditation, relaxation form
  - Limit awareness to repeated, constant focus, something that holds attraction
  - Controlled breathing
  - Pleasant site
  - Fragrance
  - Mantra

Personal Time, Meditation

- Quiet time provides uninterrupted period
  - Thoughtful introspection
  - Contemplation
  - Important things in person’s life
Diversity

- Freedom from prejudice
- Acceptance, respect of other people
- Understanding each person is unique

Diversity

- Recognize individual differences
  - Race
  - Ethnicity
  - Gender
  - Sexual orientation
  - Socioeconomic status
  - Age
  - Physical abilities
  - Religious beliefs
  - Political beliefs
  - Other ideologies
What are potential communication and patient care issues related to patients who are members of ethnic minority groups?

Diversity

• Accepting differences
  – Provides opportunity to learn about others
  – Enables us to see variations in positive light
  – Affirms value of differences
  – Paramedics can see another viewpoint

Diversity

• Being able to work in a diverse workplace is essential
  – “Include” rather than “exclude”
  – Treat everyone with respect
  – Do not assume everyone shares your beliefs
  – Examine assumptions about people who are different from you
  – Learn, listen carefully
  – Observe those around you
Stress

- Can be positive or negative
  - Good stress/eustress
    - Positive response to stimuli
  - Bad stress/distress
    - Negative response to environmental stimuli
    - Source of anxiety, stress-related disorders

Phases of Stress Response

- Hans Selye, Australian-born professor, University of Montreal
  - Coined term in medical usage, 1950
  - Three stages of stress response, called general adaption syndrome
    - Alarm reaction
    - Resistance
    - Exhaustion
Alarm Reaction

- Human body prepares quickly to battle, run from danger
  - “Fight-or-flight”
  - Considered positive, eustress
  - Prepares individuals to be alert, defend themselves

At first, body response is unaffected by situation type
- Body reacts equally to pleasant/unpleasant, dangerous/exciting, happy/sad events
- Response’s purpose is to achieve top physical preparedness rapidly, cope with event
  - Argument with coworker
  - Performing unfamiliar patient care
  - Taking part in delivery of healthy infant

Set off by autonomic nervous system
- Coordinated by hypothalamus
- Triggers pituitary gland release of adrenocorticotropic hormone into bloodstream
- Stimulates glucose production
- Increases blood nutrient concentration
Alarm Reaction

- Activates adrenal glands for intense sympathetic discharge of adrenaline and noradrenaline
  - Cause increase heart rate, BP, pupils dilate, improves vision
  - Relax bronchial tree for deeper breathing
  - Increase blood sugar for total energy
  - Slow digestive process
  - Shift blood supply, accommodate clotting mechanism in case body is wounded

- After physiological events, body is ready for emergency (fight or flight)
  - Can perform feats of strength, endurance far beyond normal capacity
- Takes only seconds
  - Reaction occurs at first exposure of body to stressor
  - Response stops when body realizes event is not dangerous
  - Individual adapts to situation
  - Bodily functions return to normal

Resistance

- Raises resistance level to agent that provoked it
- If stress persists long enough, person’s reactions change
  - Become accustomed
  - Stressors may change over time
Exhaustion

• With continued stress, coping mechanisms weaken, resistance fails
  – Paramedic may appear unaffected by stress, life-threatening emergencies
• When adaptive resources reservoir ceases, resistance to other stress types declines
  – Physical, psychological ills
  – Rest, recovery needed before another emergency

Stress Response Triggers

• Factors
  – Lose something of value
  – Injury, injury threat
  – Poor health, nutrition
  – Frustration
  – Ineffective coping skills

Physiological, Psychological Effects

• Anxiety
  – Can be normal
  – Provides warning system
  – Protects from being overwhelmed by sudden stimulation
  – Prepares for action in critical situations
  – Allows paramedic to make quick, correct decisions
Physiological, Psychological Effects

• Sometimes stress is not reduced by solution to conflict, emergency
  – Interferes with thought process, relationships, work performance
  – People may develop concentration problems, lose ability to trust, become isolated, withdrawn

Chronic Anxiety State

• May lead to physical, emotional, cognitive, behavioral effects
• Warning signs for immediate evaluation, medical care
  – Chest pain
  – Difficulty breathing

Chronic Anxiety State

• Physical warning signs
  – Cardiac rhythm disturbances
  – Chest pain
  – Difficulty breathing
  – Nausea
  – Profuse sweating
  – Sleep disturbances
  – Vomiting
Chronic Anxiety State

• Emotional warning signs
  – Anger
  – Denial
  – Fear
  – Feeling of being overwhelmed
  – Inappropriate emotions
  – Panic reactions

Chronic Anxiety State

• Cognitive warning signs
  – Confusion
  – Decreased awareness level
  – Difficulty making decisions
  – Disorientation
  – Distressing dreams
  – Memory problems
  – Poor concentration

Chronic Anxiety State

• Behavioral warning signs
  – Changes in eating habits
  – Crying spells
  – Excessive silence
  – Hyperactivity
  – Increased alcohol consumption
  – Increased smoking
  – Withdrawal
Have you ever experienced any of the warning signs of stress? Describe your experience.

Chronic Anxiety State

• Presence of one or more warning signs is indicator of distress
• Warning sign absence does not preclude chance of stress reaction

Stress Causes in EMS

• Environmental
  – Noise
  – Bad weather
  – Confined spaces
  – Poor lighting
  – Spectators
  – Rapid response to scene
  – Life-and-death decision making
Stress Causes in EMS

- Psychosocial
  - Family relationships
  - Conflicts with coworkers
  - Abusive patients
  - Similar sources
- Personality
  - Way person thinks, feels
  - Need to be liked
  - One’s expectations, guilt, anxiety

Lesson 2.4

Stress Reactions and Management Techniques

Learning Objectives

- Give examples of stress-reduction techniques.
- Outline the 10 components of critical incident stress management.
- Given a scenario involving death or dying, identify therapeutic actions you may take based on your knowledge of the dynamics of this process.
Stress Reactions

• Certain types of persons are attracted to certain careers
  – Some believe EMS personnel, firefighters, police officers, other public safety employees are predisposed to stressful, demanding jobs
  – No person is immune from potential conflicts managing stress

Adaptation

• Successful ways to deal with stressful situations
  – Begins using defense mechanisms
  – Focuses on developing coping skills, problem solving
  – Concludes with mastery

Defense Mechanisms

• Repression
  – Involuntary attempt to keep feelings/memories from reaching conscious awareness
• Regression
  – Return to earlier levels of emotional adjustment
Defense Mechanisms

- **Projection**
  - Attributing one's own undesirable qualities, feelings, motives, or desires to someone else
- **Rationalization**
  - Need to explain their behavior
- **Compensation**
  - Trying to cover up for real or imagined weakness

Defense Mechanisms

- **Reaction formation**
  - Defensive behavior that prevents undesirable urges from being expressed
- **Sublimation**
  - Form of substitution
  - Changing undesirable urges to socially acceptable ones

Defense Mechanisms

- **Denial**
  - Rejecting elements of reality that are knowingly intolerable
- **Substitution**
  - Switching one activity/goal for another desired but unreachable one
- **Isolation**
  - Separating unacceptable impulses, acts, ideas from their origin in memory
Coping

• Active confronting process
• Gathering, using information to change, adjust to new situation
• Positive coping
  — Regular physical exercise
  — Activities at work for financial rewards, increased productivity
  — Find humor in personal crises
  — Talk through stressful events with family, friends, coworkers

Coping

• Negative coping
  — Withdrawal
  — Alcohol, drug use
  — Angry outbursts toward family, coworkers
  — Silence

Why is it important to avoid burnout? How might burnout affect patient care?
Problem Solving

• Analyzing
• Finding options to deal with issue now, in the future
• Allows clear identification of problem
• Determine course of action
• Healthy approach to everyday concerns

Mastery

• Ability to see multiple options, solutions for challenging situations
• Results from extensive experience, use of effective coping mechanisms with similar situations
• Difficult to achieve

Compare your reactions while on a highly stressful call in the field to those you experience when you feel stressed about school. How are those feelings similar or different from each other?
Stress Management Techniques

• To manage stress, you must recognize early warning signs of anxiety
  – Heart palpitations
  – Difficult, rapid breathing
  – Dry mouth
  – Chest tightness, pain
  – Anorexia, lack of appetite, nausea, vomiting, diarrhea, abdominal cramps, flatulence, “butterflies”

Stress Management Techniques

• More warning signs of anxiety
  – Flushing, diaphoresis, body temperature fluctuation
  – Urination urgency, frequency
  – Dysmenorrhea (painful menstruation), decreased sexual drive, performance
  – Aching muscles, joints

Stress Management Techniques

• Anxiety’s physical effects are not as noticeable
  – Increased blood pressure, heart rate
  – Increased blood glucose levels
  – Increased adrenaline production by adrenal glands
  – Reduced gastrointestinal peristalsis
  – Pupillary dilation
Stress Management Techniques

• Reframing
  – Looking at a situation from a different emotional viewpoint
  – Placing it in a different “frame” that fits facts of another situation
  – Change meaning of the situation

Stress Management Techniques

• Controlled breathing
  – Natural stress control technique
  – Concentration, depth, rate of breathing, achieve calming effect
  – Begins with deep breathing, less deep breathing, normal breathing

Stress Management Techniques

• Progressive relaxation
  – Systematically tightens, relaxes muscle groups
  – Fools brain into initiating muscle relaxation throughout body
Stress Management Techniques

• Guided imagery
  – Used with meditation
  – Another person acts as guide during stress response
  – Focuses on image that helps relieve stress
  – Once learned, can be done without prompting

• Other methods
  – Be aware of personal limitations
  – Peer counseling
  – Group discussions
  – Proper diet, exercise, sleep, rest
  – Pursue positive activities outside EMS; balance work, recreation

• Critical incident stress management (CISM)
  – Early 1970s concept evolved from critical incident stress debriefing
  – Helps emergency workers exposed to major incident
  – Based on partnership between mental health professionals, peer group support
Stress Management Techniques

- Critical incident stress management (CISM)
  - Form of psychological first aid debated
  - Designed to give emergency workers chance to vent feelings about call, event that had major impact
  - Aims to help understand reactions
  - Reassures person that the experience is normal, feelings may be common to others involved
  - Helps one person/many from team

Which type of call would be a critical incident for you personally?

Posttraumatic Stress Disorder

- Anxiety disorder, can occur from traumatic events
  - Combat, military exposure
  - Child sexual, physical abuse
  - Terrorist attacks
  - Sexual, physical assault
  - Serious incidents (car crash)
  - Natural disasters (fire, tornado, hurricane, flood, earthquake)
Posttraumatic Stress Disorder

- Studies indicated EMS personnel more likely than general public to suffer emotional difficulties
  - Increased absenteeism from work
  - Troubled family life
  - Increased alcohol, other drug use
  - Increase suicide risk

PTSD Symptoms

- Re-experiencing
  - Mental “replay” of event
  - Strong emotional reactions
  - Occurs during waking hours or sleep (nightmares)

- Avoidance
  - Efforts to evade activities, places, people that remind those with disorder of traumatic event

PTSD Symptoms

- Numbing
  - Experienced as loss of emotion, particularly positive feelings

- Arousal
  - Excessive psychological activation
  - Heightened sense of being “on guard”
  - Difficulty with sleep, concentration
PTSD Management

• Counseling
• Behavior therapy
• Medication
• Brief “time-out” periods from work (1–8 weeks)
• Support from coworkers, supervisors

Grieving Process Stages

• Denial
  – Feeling of “No, not me”
  – News so overwhelming, must be absorbed slowly
  – Patient seeks other options, verifies medical report accuracy, seems to ignore what he or she was told
  – Valuable defense mechanism
  – Troubling when no indication exists that patient understands seriousness of the situation
  – Most patients, families, friends deny death to some degree

Grieving Process Stages

• Anger
  – “Why me?” phase
  – Rejects all efforts to help, console
  – Anger of dying person to those living
  – May be directed toward God
Grieving Process Stages

• Bargaining
  – “Yes, me, but…” frame of mind
  – Person admits reality of being sick/dying, tries to bargain for extension or quality of life
  – Usually secret, frequently made with God, rarely kept

• Depression
  – “Yes, me” reaction
  – Prepares to say goodbye to everything, everyone
  – Inherent sadness should be respected

Grieving Process Stages

• Acceptance
  – Simple, quiet “Yes”
  – Grows out of individuals’ convictions that they have done what they could to be ready to die
  – Personal energy, interpersonal interests decrease significantly
  – Relatives, friends usually need more help than dying person
  – Dying person’s most important wish, not to die alone

Grieving Process

• Often see reactions of families going through death process
  – Denial may be obvious
  – May not appear to see/acknowledge seriousness of situation in which decisions about resuscitation must be made
  – Anger may be directed at paramedic, health care workers
  – Bargaining may occur
  – Must realize psychological aspects of grief stages
Grieving Process

- Death notification
  - Can influence grief response
  - Gather family in private area
  - Brief account of situation causing death
  - Use words death or dead
  - Be compassionate, allow time for absorption of news, questions
  - Allow family members to see relative if they choose

Common Needs of the Paramedic

- May experience grief stages
  - Normal
- Must try to disguise, suppress emotions at scene
- Discuss feelings with friends, coworkers, family in constructive way, lessen emotional burden
  - Will need chance to process incident, obtain closure
  - Use resources to help avoid effects of cumulative stress

What personal experiences have you had with death? How did you or others who were close to the deceased react to the initial news of the death?
Developmental Considerations

• Children up to age 3
  – Will sense something has happened
  – Will realize others are sad, crying
  – May be aware of increased activity in household
  – Urge family to watch for changes in eating, sleeping patterns, increased irritability
  – Urge family to maintain consistency with child’s routine

Developmental Considerations

• Children 3–6 years
  – No concept of finality of death
  – May believe person will return, may ask “when” continually
  – Believe in magical thinking, may feel responsible for death
  – May believe everyone else they love will die too
  – Family must watch for changes in behavior patterns with friends at school, difficulty sleeping, eating habits
  – Family must emphasize that child is not responsible for death
  – Reinforce fact that crying is normal when persons are sad, encourage talking about feelings

Developmental Considerations

• Children 6–9 years
  – Begin to understand finality of death
  – Want detailed explanations for death, can differentiate fatal illness from “being sick”
  – May be afraid that other loved ones will die too
  – May be uncomfortable expressing feelings, may act silly, embarrassed when talking about death
  – Suggest to family they talk about normal feelings of anger, sadness, guilt and that they share their own feelings too
  – Family members should not hesitate to cry
Developmental Considerations

• Children 9–12 years
  – Aware of finality of death
  – May want to know details
  – Concerned with practical matters involving their lifestyle, may “act like adult”
  – Most will show regression to earlier stage
  – Set aside time to talk about feelings, encourage sharing memories to aid grief response

Developmental Considerations

• Older adults
  – Show concern for other family members
  – May worry about further loss of independence, financial matters
  – Family members must be sensitive, understanding about issues

Summary

• Wellness has two main aspects: physical well-being and mental and emotional health
• As health care professionals, paramedics have responsibility to serve as role models in disease prevention
• Sleep helps rejuvenate a tired body
Summary

• Persons who are overweight are at risk for developing certain illnesses
  – Healthful diet includes a variety of foods that are low in fat, saturated fat, cholesterol
  – Calories should be regulated to prevent unwanted weight gain
• Physical fitness is a condition that helps individuals look, feel, do their best

Summary

• Steps to reduce cardiovascular disease
  – Improving cardiovascular endurance
  – Eliminating cigarette smoking
  – Controlling high blood pressure
  – Maintaining normal body-fat composition
  – Maintaining good total cholesterol/high-density lipoprotein ratio, monitoring triglyceride levels
  – Controlling diabetes
  – Avoiding excessive alcohol, eating healthy foods
  – Reducing stress, making periodic risk assessment

Summary

• Most common cancers are linked to environmental risk factors: smoking, sunlight, diet
• Paramedic’s duty
  – Be familiar with laws, regulations, national standards that address issues of infectious disease
  – Take personal protective measures to guard against exposure
Summary

- Actions to take after significant exposure
  - Disinfection
  - Documentation
  - Incident investigation
  - Screening
  - Immunization
  - Medical follow-up

Summary

- Injuries on the job can be minimized
  - Knowledge of body mechanics during lifting, moving
  - Be alert for hostile settings
  - Prioritization of personal safety during rescue situations
  - Practice safe vehicle operation
  - Use safety equipment and supplies

Summary

- Misuse, abuse of drugs/other substances may lead to chemical dependency (addiction), may have wide range of effects on physical/mental health
- Diversity encompasses acceptance, respect of other people
  - Each person is unique
  - Recognize individual differences
Summary

• “Good” stress is eustress
  – Positive response to stimuli, considered protective
• “Bad” stress is distress
  – Negative response to environmental stimuli
  – Source of anxiety, stress-related disorders

Summary

• Adaptation is process in which persons learn effective ways to deal with stressful situations
  – Order of process
    • Using defense mechanisms
    • Develops coping skills
    • Problem solving
    • Mastery

Summary

• Critical incident stress management
  – Designed to help emergency personnel understand their reactions to call/event that had a major emotional impact
  – Reassures them that what they are experiencing is normal, may be common to others involved in incident
• Paramedic’s initial contact with death notification can influence the grief process greatly
Summary

• Five stages of dying
  – Denial
  – Anger
  – Bargaining
  – Depression
  – Acceptance

Questions?