

Physical Changes of Aging

Integumentary System

- Production of new skin cells decreases
- Sebaceous (oil) & sudoriferous (sweat) glands become less active
- Circulation to the skin decreases, causing coldness, dryness & poor healing.
The skin becomes less elastic & itching is common.
- Dark yellow/brown spots occur: senile lentigines
- Fat layer diminishes, resulting in wrinkles and an increased sensitivity to temperature
- Hair loses color & hair loss occurs
- The nails become tough, thick and, brittle

Musculoskeletal System

- Muscles lose tone, volume & strength
- Osteoporosis – calcium loss (etc.) causes bones to become more brittle
- Arthritis - inflammation of the joints, causing pain, stiffness and loss of flexibility
- The rib cage becomes more rigid & the bones in the vertebral column compress
- All the above changes lead to a loss in height, weakness, slower movements and a decreased sense of balance

Circulatory System

- The heart becomes less efficient
- Blood vessels narrow & become less elastic
- Blood flow to the brain & other vital organs decreases

Respiratory System

- Alveoli become thinner & less elastic, decreasing the exchange of gases between the lungs & bloodstream
- The bronchioles also lose elasticity
- Dyspnea increases susceptibility to respiratory infections
- Changes in the larynx lead to a higher-pitched & weaker voice

Endocrine System

- The increased/decreased production of hormones
- The immune system is less efficient
- BMR decreases – leads to feeling cold, tired & less alert
- Intolerance to glucose can develop

Nervous System

- Blood flow to the brain decreases & there is a progressive loss of brain cells. This interferes with thinking, reacting, interpreting & remembering
- Nerve endings are less sensitive, decreasing the ability to respond to pain & other stimuli
- The sense of taste, smell, vision & hearing diminish
- Peripheral (side) vision & night vision decrease, eyes take longer to adjust to light & are more sensitive to glare. The elderly are more prone to cataracts (cloudy lens) & glaucoma (increased intraocular pressure)

Digestive System

- Fewer digestive juices & enzymes are produced, which can result in indigestion
- Teeth are lost
- Peristalsis & liver functions decrease
- Dysphagia is a problem, due to a decrease in saliva & a slower gag ref
- Flatulence & constipation are common

Urinary System

- The kidneys decrease in size & become less efficient
- The ability of the bladder to hold urine decreases
- The bladder may not empty completely & may lead to bladder infectic
- Nocturia & incontinence are common

Reproductive System

- Decreased estrogen & progesterone cause thinning of the vaginal walls & vaginal dryness
- Vaginal infections/inflammation are more common
- Breasts & uterus sag (prolapsed uterus)
- Decreased testosterone slows the production of sperm & the sexual response (problems with ejaculation)
- Testes become smaller & less seminal fluid is produced
- Sexual desire does not necessarily diminish & studies have shown that sex improves muscle tone & circulation, and may decrease pain (arthritis, etc.)

Confusion and Disorientation in the Elderly

Symptoms:

Confusion, memory loss, mood swings, wandering, disorientation, combative behavior, hallucinations, regression, forgetfulness, lack of attention to hygiene, paranoia, inability to respond or follow instructions, etc.

Temporary Causes (ACUTE):

Stress, depression, alcohol, kidney disease, liver disease, respiratory disease (hypoxia), medication, drug overdoses, fever, poor nutrition, dehydration, & lack of sleep

Permanent/Irreversible Damage (CHRONIC):

Stroke (a cerebrovascular accident), transient ischemic attacks (TIAs) – mini strokes (often caused by arteriosclerosis or atherosclerosis), dementia – such as Alzheimer's disease

Suggestions:

- Protect them from danger (sharp objects, chemicals, matches, etc.)
- Protect them from wandering (secure doors & windows, use sensors)
- Use a calm & gentle voice; create a calm & gentle atmosphere (limit noise, crowding & commotion)
- Address them by name and state your name & title
- Repeatedly refer to day, time & place
- Use clocks, calendars, etc.
- Maintain simple, consistent routines
- Be patient – speak slowly, don't rush them, repeat instructions, etc.
- Keep familiar objects in view & encourage discussion of familiar events
- Encourage independence when appropriate
- Encourage daily participation (getting dressed, opening the curtains, wearing glasses, discussing current events, etc.)
- Use appropriate touch
- Avoid arguments; correct/redirect gently
- Treat them with dignity & respect