Physical Changes and the Normal Aging Process

Over the past few months pain has become a front burner topic for long term care. Seminars and newsletters have emphasized that pain is not a normal part of aging. There are, however, many physical changes that are part of the aging process. Today’s Clinical Capsule will review these areas and the importance of these changes for the care planning process.

Many of the physical changes that occur as a person gets older are a normal part of the aging process. These physical changes may develop at different times in different people. One person’s lifestyle may slow down the process while another’s may speed it up. However, left to Mother Nature, these will occur.

Studies are continually being conducted to find the fountain of youth for the baby boomer generation. People want to know how to stop or slow down this process as much as possible. In some areas, progress is being made and in other areas it is not. We are seeing more people over the age of 100 than we ever saw before and a person’s life expectancy has continued to increase.

All elderly persons, however, may experience physical changes, and it is important for family members to understand that their loved ones will experience them whether they are in a long term care facility or at home. It is the responsibility of the facility to educate family members about a resident’s risk for developing these physical changes. Knowing that a resident is at risk, and including his or her family in the care planning process, will bring about better understanding.

Senses

Vision –

- **Changes:** Lens stiffen, making focusing on close objects harder; the lens becomes denser, making seeing in dim light harder; the lens yellows, changing the way colors are perceived; the pupils react more slowly to changes in light with sensitivity to glare increasing; and there is decreased peripheral vision.
- **Care Planning:** Reduce glare in environment; use enhanced lighting; keep eyewear clean; face resident when speaking to them.

Hearing – Most change in hearing is due to exposure to loud noise, however, there are some age related changes.

- **Changes:** Inability to hear high pitched sounds (consonants such as k, t, s, p, and ch are high pitched); inability to hear messages because of background noise; and structures in the inner ear that help with balance stiffen and deteriorate slightly resulting in unsteadiness or loss of balance. Hearing loss may also result in withdrawal from others.
- **Care Planning:** Reduce background noise; articulate consonants more clearly, rather than simply speaking louder; monitor for earwax, which accumulates more in the elderly; instruct them to get up slowly giving the inner ear time to adjust; and monitor for withdrawal from social activities.

Taste -

- **Changes:** At age 50, the ability to taste and smell gradually diminish and after age 70 the taste buds greatly decrease, causing many foods to taste bitter or bland.
- **Care Planning:** Use different spices to enhance the flavor of the food.
Skin and Touch –

- **Changes:** Because the body produces less collagen and elastin, which help make the skin strong and flexible, the skin becomes less elastic, drier and more fragile, leading to more chances of injury, bruises, and sores; loss of subcutaneous fat results in the inability to maintain normal temperature; cell replacement reduced by 50% making healing harder with increased risk of pressure ulcers; decreased nerve endings results in less sensitivity to pain, temperature, and pressure; and decreased hair growth and reduced melanin makes the elderly more prone to sunburn.

- **Care Planning:** Be extra careful when using heat or cold therapy; be gentle when doing skin care and use gentle soaps; cover residents for extra warmth and have them wear extra clothing; reposition frequently and keep skin dry; use a sunscreen.

**Skeletal System**

**Muscles** –

- **Changes:** Muscles lose cells and mass resulting in loss of strength and movement, which makes routine tasks more difficult. By the time a person is 75, the percentage of muscle mass is typically half of what it was as a young adult.

- **Care Planning:** Keep resident involved in appropriate muscle strengthening exercise programs, which will increase muscle mass; allow extra time to complete activities; and assist with walking and positioning if needed.

**Bones** –

- **Changes:** Bones may become porous and brittle resulting in fractures, and less joint fluid being produced results in less flexibility.

- **Care Planning:** Move joints only as far as they move easily without resistance. Although there may be some discomfort in moving joints, inactivity results in further degeneration and more pain.

**Heart and Blood Vessels**

**Heart** –

- **Changes:** Since the heart fills with blood more slowly it cannot speed up as quickly as a young heart when extra demands such as exercise or illness require it to do so.

- **Care Planning:** Regular aerobic exercise can improve an aging heart’s performance. Observe resident for signs of overexertion.

**Blood Vessels** –

- **Changes:** The blood vessels become stiffer and are less able to expand when more blood is pumped through them resulting in an increase in blood pressure.

- **Care Planning:** Monitor blood pressure and medicate per order with antihypertensive.

**Respiratory System**

**Muscles and Lungs** –

- **Changes:** Diaphragm becomes weaker resulting in decreased respirations and less oxygen entering the blood; lungs are less able to fight infection because cells that sweep away infection are less able to do so; cough is weaker thus decreasing lung clearance.

- **Care Planning:** Encourage deep breathing and watch for signs of infection.

**Digestive System**

- **Changes:** Overall the digestive system is less affected by aging than most parts of the body. Some residents may develop lactose intolerance because of less lactase being produced. Materials move through the large intestine slower, which may result in constipation.

- **Care Planning:** Monitor for signs of lactose intolerance and constipation.

**Urinary System**

- **Changes:** Maximum volume of bladder decreased causing more frequent urination; bladder muscles can become overactive regardless of need to urinate; muscles weaken leaving urine in bladder after urination; muscles don’t close resulting in leaking.

- **Care Planning:** Determine cause of urinary problem and put on appropriate regimen; medicate for overactive bladder as needed; and monitor for signs of urinary tract infection due to retained urine.