

## Flight Surgeon Notes #3

### Comments on vaccines and Immunizations for persons who are 60+ years old.

The basic childhood immunization series that the CDC (Centers for Disease Control and Prevention) has recommended for most of our lives is DPT (Diphtheria, Pertussis [whooping cough], and **Tetanus**). This series is usually given in early childhood. The **Tetanus toxoid booster** must be renewed at least every 10 years. This is particularly important for anyone that works outside. The bacteria that causes tetanus (Lock Jaw) is *Clostridium tetani*. This **bacterium** can be found in soil, manure, or dust. Infection in humans is introduced to the body through cuts or puncture wounds, particularly when the wound area is dirty. Animal bites, burns, and non-sterile injection of drugs can also lead to infection with *Clostridium tetani*. Tetanus is a serious disease that affects your nervous system, leading to painful muscle contractions, particularly of your jaw and neck muscles. For this reason, the disease caused by Tetanus is commonly known as “Lockjaw.” Tetanus can interfere with your ability to breathe and can threaten your life. But, the most dangerous factor is that there is no cure for the disease. It is important to remain current on your immunity by a tetanus booster every 10 years. It validates the old axiom that “an ounce of prevention is worth a pound of cure.”

**Influenza (flu vaccine)** The Centers for Disease Control and Prevention recommends a flu vaccine every year. I cannot be so absolute in this recommendation. Over 50 years of rheumatology practice, with immunocompromised patients, I cannot bear witness to its effectiveness. As a SAC Flight Surgeon at Bergstrom AFB, Texas, before Vietnam, I could hardly recognize my own signature on shot records that had been forged to escape flu shots. However, personal prejudices aside, the standard of modern medicine is to have the flu vaccine annually.

**Shingles Vaccine for Herpes zoster:** The virus that causes chicken pox in childhood transmutes into the Herpes zoster virus in adulthood. This is another recommended vaccine. I have encountered many patients, including myself, who have had shingles more than once. (This year, I had my 3<sup>rd</sup> episode.) At several conferences, presented by Infectious Disease specialists, I have asked the following question, “If infection by the wild virus does not confer immunity, why should I expect a commercial vaccine to confer immunity?” I receive a consistent answer to my question. The answer is, “*That’s a very good question, Doctor!*” I wonder if these authorities are employed by the pharmacology company that manufactures the vaccine...! I defer to the recommendation of your physician.

**Pneumococcal Vaccine:** The bacteria that cause pneumococcal pneumonia is very sensitive to penicillin therapy and hence I see no urgency in obtaining the vaccine. The exception is for persons who have had their spleen removed. Persons without a spleen are very sensitive to this bacteria and a vaccination is highly recommended. Discuss with your physician if there is any question.

### Mental changes and Memory loss with Age

Unfortunately, there is no fountain of youth yet available. By age 80, blood flow to the brain of the average person is 30% of the blood flow to the brain of a 20 year old. The best method of countering this is by physical exercise that pumps more blood to the brain. As we age, Long-term memory is frequently well preserved. However, short-term memory is most affected with age. You can recall events that happened in childhood, but forget where you placed the keys ten minutes earlier.

Statistically, **one in four older adults** experiences a **mental** health problem such as **depression, anxiety, schizophrenia or dementia**. The suicide rate for men over 85 is higher than that of any other age group. Many of these problems are recognized by a spouse or caretaker before the individual realizes that there is a problem. Seek professional help! Newer medications for depression have helped more people than any other type of therapy.

The **Geriatric Mental Health Foundation** lists a number of potential triggers for mental illness in the elderly:

- **Alcohol or substance abuse**
- **Change of environment, like moving into assisted living quarters.**
- **Dementia-causing illness (e.g. Alzheimer's disease)**
- **Illness or loss of a loved one**
- **Long-term illness (e.g., cancer or heart disease)**
- **Medication interactions**
- **Physical disability**
- **Physical illnesses that can affect emotion, memory and thought**
- **Poor diet or malnutrition**

## **10 Symptoms of Mental Illness**

As our loved ones age, it's natural for some changes to occur. Regular forgetfulness is one thing, however; persistent cognitive or memory loss is another thing with potentially serious implications.

The same goes for extreme anxiety or long-term depression. Caregivers should keep an eye out for the following warning signs, which could raise concern about mental health:

1. **Changes in appearance or dress, or problems maintaining the home or yard.**
2. **Confusion, disorientation, problems with concentration or decision-making.**
3. **Decrease or increase in appetite; changes in weight.**
4. **Depressed mood lasting longer than two weeks.**
5. **Feelings of worthlessness, inappropriate guilt, helplessness; thoughts of suicide.**
6. **Memory loss, especially recent or short-term memory problems.**
7. **Physical problems that can't otherwise be explained: aches, constipation, etc.**
8. **Social withdrawal; loss of interest in things that used to be enjoyable.**
9. **Trouble handling finances or working with numbers.**
10. **Unexplained fatigue, energy loss or sleep changes.**

Some changes in thinking are common as people age. For example, older adults may have: Increased difficulty finding words and recalling names. Others may experience more problems with multi-tasking. It is common to experience mild decreases in the ability to pay attention.

However, aging may also bring **positive cognitive changes**. **People often have more knowledge and insight gained from a lifetime of experiences**. Research shows that older adults can still learn new things, create new memories and improve their vocabulary.

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The age-old concept of “**use it or lose it**” continues to hold true. Stay mentally and physically active, but do not become self-destructive by demanding more of your physical body than it can perform. **Retirement does not mean “doing nothing!”** Develop hobbies that occupy your brain and constantly challenge your thinking. Never stop learning!

**General Issues for safety in Aging:**

- 1. If you awaken from sleep to use the toilet or answer the telephone, do not hop out of bed. Sit for a moment of two on the edge of the bed to allow blood vessels to adapt to the change in position. This is not as spontaneous as it was in youth.**
- 2. Over the past 10 years, I have had 2 patients who broke their necks in the shower. Equip your shower with non-skid rubber mats, grab bars and a stool or place to sit. If you drop the soap and bend over to retrieve it, this action will upset your balance and lead to a fall.**
- 3. By age 60, the average person has lost 50% of their taste buds along with their sense of thirst. I have seen many patients that have passed out due to dehydration. The best indicator of hydration is the color of your urine. It should be very pale yellow. If it is dark yellow, you need more fluids. The wrinkles that develop as we age increase the surface area of the body to a degree that allows us to lose more fluids through evaporation. Compare this to an elephant. The huge elephant body can only maintain a healthy temperature through evaporation of sweat from the body. Every inch of an elephant’s body is covered in wrinkles to allow this. In technical terms, the ratio of body mass to body surface area is critical for life. As we age, our body mass shrinks. At the same time, our skin wrinkles to increase the surface area to lose more heat and fluids.**
- 4. Be cautious about extending your neck. Cocking your head backwards decreases the diameter of the central canal (containing the spinal cord) and may pinch the spinal cord. The vertebral arteries that carry blood to the visual cortex and cerebellum may be crimped by cocking your head backwards.**

These are just a few matters to contend with as we age.

*Future columns will note other issues of aging. Suggestions are welcome!*

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**P.S.** Remember: **Life is sweet** and **Death is peaceful**...It’s **the transition** that bothers me!

Best wishes to all for the holiday season!

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