

# Problems of Aging (The Mature Musician) - Arts Medicine for the Double Reed Player

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This presentation is the third in a continuing series on medical problems that can affect the double reed instrumentalist. Previous subjects have included hand and upper extremity injuries and nerve compression problems.<sup>1,2</sup>

Making music is a lifelong activity and love for most of us – unlike many other occupations, an instrumental performing career may last as long as 50 or 60 years! However, it is true that our physical and mental capabilities are subject to change with age. Many of these changes are normal and to be expected, while others are classified as diseases or pathological problems. How, then, can we deal effectively with these changes and yet continue to perform for as long as possible? My purpose in this article is to present an overview of some of these age-related conditions as they pertain to the instrumentalist, and to give some information about basic methods of dealing with them.

Our special senses include sight, hearing and taste. The first two are particularly important to the performing artist, for these senses not only can change with age, but also may be affected by performance-related difficulties. Since we cannot replace the functions of our eyes and ears, their preservation and protection are particularly important.<sup>1</sup>

Common to many of us is the condition of *presbyopia*, or aging of vision. The first sign is a gradual decrease in the clarity of near vision, often noticed about age 40-45. The small muscles within the eyeball become weaker, and cannot change the shape of the lens to accommodate

seeing objects (including the printed note) at relatively close range. This explains why many people over age 40 wear reading glasses or "bifocals" to see clearly at a distance of 18-24 inches.

The next change that may occur is a decrease in the acuity of mid-range vision. This is apparent while looking at objects in the 24-36 inch distance, approximately that of our eyes to a music stand. An additional lens correction thus may be necessary to see clearly at this distance, giving rise to the term "trifocals" for those spectacles having all three degrees of correction.

Not all people will need this combination of lens correction; many can manage quite well with reading glasses for near vision if they have no loss of distance acuity. Others will require mid-range and/or near vision correction, and some will require help in all three areas. Optical technicians are skilled at crafting spectacles for those of us with special visual needs – including lenses with a large close – or mid-range segment at the bottom for reading music, and a smaller segment for distance vision at the top (to see the conductor).

Some individuals may develop a cloudiness in the lens of the eye, which collects and focuses light. This condition is called a *cataract* and can also cause decreased visual acuity; the cause for this is generally unknown, although a few specific diseases may produce this change. Studies have shown that nearly 100% of people over age 75 exhibit some clouding of the lens in at least one eye. Decreased vision is usually noticed gradually, and often requires no treatment for many months or years. However, when the loss of vision is

significant, surgical removal of the cloudy lens (often including immediate replacement with a man-made substitute) may be quite helpful in regaining better vision.

An additional eye condition that can occur with age is glaucoma. Our eye contains a clear fluid in the chamber between the cornea at the front of the eyeball and the lens in the middle. When, for a variety of reasons, the pressure of this fluid increases abnormally, we see less acutely and may often notice a "halo" about lights or other bright objects. Like cataracts, this condition is usually painless, and may first be diagnosed during an eye examination by a medical professional. Medication (eye drops) can be very helpful in controlling this condition, and surgery to correct the increased pressure is usually not necessary. However, daily treatments must be continued throughout one's life, and regular eye examinations are mandatory to see that the glaucoma is kept under control.

Like our eyesight, hearing tends to decrease with age. This condition, called presbycusis, should not be confused with the problem of noise-induced hearing loss. NIHL often affects us in earlier life, and is caused by prolonged or recurrent exposure to abnormally loud noises (musical and otherwise). Age-related hearing loss can be divided into two types: one affects the middle ear, and the other the inner ear and hearing nerve. The former, called a conductive loss, usually can be treated or helped by various hearing aids, now often worn entirely within the ear canal and barely noticeable to others. In a few cases the small bones in the middle ear may become stiff and fail to transmit sound properly; this situation may be corrected by special surgical operations.

A more serious hearing loss is that which affects the nerve and inner ear, where the sound waves are changed into the impulses necessary to be processed by our brain. This sensorineural loss, often referred to as "nerve deafness," cannot be treated by most hearing aids and thus may be considered a permanent condition. This same area of the ear is also affected by NIHL, which also can worsen with age if loud sound levels are allowed to continue.

Our musculoskeletal system is a common site of problems caused by advancing years - and many of these problems are accompanied by pain or discomfort. Foremost among them is osteoarthritis, the degenerative change in joints which is also known as "wear-and-tear" arthritis. It is estimated that significant changes in the smooth, gliding surfaces of our joints are seen (and probably felt) in about 75% of people in their eighth decade of life. The usual spectrum of symptoms includes a feeling of *stiffness* about the affected joint, often worse in the morning or after not using the joint for some time; pain of a dull and aching nature is often present, frequently aggravated by motion and relieved by rest; some loss of motion can occur, usually later in the

course of the disease, and may actually be accompanied by a relative decrease in pain.

Among the areas most commonly affected by osteoarthritis, and of concern to double reed musicians, are the spine (both the neck and low back), and the hands and fingers. People with this arthritic problem often can experience stiffness and discomfort while using their hands for rapid, repetitive or forceful motions. Bony spurs or irregularities about the margins of a joint may produce the "knobs" we see on our fingers, especially at the outermost joints. Further damage to the joint surfaces may cause the tip of a finger to become unstable and deviate to one side; this deformity has obvious implications for instrumentalists trying to cover tone holes in double reeds and clarinet. Women are especially likely to develop arthritic changes at the bottom joint of the thumb, where it joins the small bones of the wrist. These changes frequently produce a stiffness that limits the thumb's ability to move away from the rest of the fingers and palm. This situation limits the width of our grasp, and the first knuckle of the thumb often becomes loose and unstable from over-compensation while trying to support an oboe or to hold large items. Fortunately, these degenerative changes affect the wrist joints much less often, and the motions of flexion, extension and forearm rotation are usually preserved and remain relatively comfortable.

Spinal stiffness from osteoarthritis may limit our general flexibility, with a decreased ability to turn our head from one side to another, or to lift up our head (and thus watch the conductor!). Low back pain and stiffness can affect the ease with which we can sit in certain chairs, and the duration of such sitting. Occasionally the arthritic spurs on our vertebrae will compress a spinal nerve, from the neck or low back, causing shooting pains down an arm or a leg, occasionally accompanied by a feeling of numbness, tingling or muscle weakness. These symptoms are more ominous and may progress to disabling changes; early medical evaluation is mandatory for this type of arthritic problem.

Treatment of degenerative joint disease usually depends on the nature of the joint involved, the severity of damage, and the degree of pain and other symptoms experienced by the patient. As with all conditions I've mentioned in this article, the precise choice of treatment methods should be under the direction of a qualified medical professional. These methods may include the use of aspirin or some other anti-inflammatory agent, splints for temporarily protection of a painful joint, exercises to maintain flexibility and muscle strength, injections of steroids to reduce inflammation, and even the infrequent surgical procedure. Although surgery is often considered a "last resort" in treatment, it can restore comfort, movement and improved function to a hopelessly damaged joint; a good example is total joint replacement for arthritic hips and knees (and occasionally for other joints as well).

A special type of bony change, most often seen in women, is osteoporosis. After the menopause, and often accompanied by a lower level of physical activity, some people's bones lose their normal density and become more porous. This change is most commonly seen in those of northern European descent, and much less commonly in Asians or African-Americans. Men do develop this condition also, but usually at a later age. It is not related to arthritis of any kind, nor is it caused by arthritis; however, the two conditions often occur simultaneously. Bones affected by osteoporosis are more easily fractured (broken), and even a simple slip or minimal fall may produce a significant injury to the wrist, shoulder, pelvis or hip, or a compression fracture of a vertebra. Even our upright lifestyle may cause pain in osteoporotic spine bones, with microfractures occurring frequently enough to produce that so-called "dowager's hump" or bent-over, deformed posture we've all seen in some elderly folks.

Since we can't change our genetic makeup, the prevention and treatment of osteoporosis, especially in women, depends on good medical advice and a continuing exercise program which produces vigorous and repetitive muscle pull on our bones and encourages them to stay strong. Calcium pills and estrogens should be taken only on the recommendation of a medical physician who knows the patient and his/her specific condition and needs.

Other wear-and-tear changes can affect various soft tissues in our bodies; a common location is the rotator cuff tendons about the shoulder. This degenerative tendinitis causes pain on movement, usually while lifting the arm away from our body, sideways or to the front. Supporting one's instrument can become a painful, difficult chore with this condition. Treatment is usually conservative, and may include temporary use of medications plus a period of rest or decreased stress on the shoulder muscles. Correct body mechanics are also necessary to prevent further damage to these tissues and to minimize the strain and pain; these techniques can often be taught by the music teacher or a physical therapist.

A condition particularly damaging to the instrumentalist's hand is *Dupuytren's* contracture. This is a thickening of the connective tissues in the palm and fingers, and its cause is not known. Men are affected more than women, but both can develop a tightening of these tissues so severe that the hand and fingers will not open or extend straight, nor can the fingers spread apart completely. The little and ring fingers are most often affected – obviously a distressing situation for those of us with multiple keys to play with our small fingers! This process is not usually painful, and often takes many years to develop into a full-blown contracture; many non-instrumentalists barely notice the gradual limitation in hand function. Only surgical removal of the affected

connective tissues can allow the hand to regain its flexibility; the tendons and nerves are spared by this treatment, but most patients still require a period of rehabilitation to regain good hand function.

Lest the reader begin to think that these aging processes are destined to produce a mature life of pain, stiffness, poor hearing and vision, and loss of musical capabilities, a few words of optimism are in order. First, not everyone experiences these conditions to the same degree as others; the amount of involvement is extremely variable. It's also unlikely that a person will develop all these aging problems, nor might they develop at an age similar to that of others. A lot depends on the way one's parents fared with aging disorders, for many of these seem to have some familial tendencies relating to time of onset, pattern of disease and degree of severity.

Secondly, the advances of medical science have made dealing with the effects of aging much less onerous for many people. I've already alluded to various possible forms of treatment for these difficulties, but the musician's own medical professional still remains the best source of accurate information on handling these (and all other) health issues. Regular visits for examination, coupled with the willingness to describe one's symptoms, can afford the best chance to catch a problem early, start appropriate treatment and perhaps minimize "the ravages of time." We all know a number of instrumentalists who have played effectively into their 80's, and obviously most of them have experienced one or more of the problems I've mentioned above. With knowledge and appropriate medical help, the mature performer should in most cases be able to maintain a quality of musical life that will allow enjoyment and expertise beyond the traditional retirement age of 65.

A future article will deal with the topic of "caring for one's equipment" – a subject that has been increasing in interest as the theme of wellness is embraced by more and more people. Health professionals interested in performing arts medicine are well aware of the need for prevention of music-related difficulties; this same philosophy extends to the problems caused by injury and advancing age. 3

#### References:

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