

THE SENIOR FLUTIST – playing the flute at an advanced age



Why start the flute later in life or playing through retirement?

Learning an instrument at advanced age can be very beneficial for someone's outlook in life and help them to stay healthy and active. The new connections formed in the brain through this multidimensional task (neuroplasticity) of playing a musical instrument keep the brain and muscular functions in perfect training. The creativity and the enjoyment that comes with playing a beautiful melody release endorphins and happiness hormones, which are bringing a whole range of health benefits. The social aspects of playing music in a group provide a lot of opportunity to find a new focus in life after a busy professional career. The therapeutic benefit of music in gerontology / geriatrics is quite apparent in two examples: Alzheimer patients, hearing and playing music can access stored memories lost in every day activities. Parkinson patients report the stopping of tremors once they engage in performing music, because the pathway of neuronal activity in the brain is so much different when we sing or play music. This talk, however focuses on the challenges an ageing flutist might encounter. While the ageing process might bring challenges to the adult performer, with the right activities the happy flutist may even slow this process down in combination with accurate life style choices.



What is my experience with senior flutists?

Besides having a wide experience with teaching senior flutists in music school settings and my private teaching studio, I have met many senior flutists in workshops and flute exhibitions helping them finding an instrument that fits their needs best. Also, I have coached many students in teaching practice with their adult students and found it very enriching to introduce their life experience to the class. I often noticed that the setup of the older adult students was counter productive despite them having the best players as teachers. I firmly believe that there is a difference in setup requirement according to playing force applied (the outer edge of the embouchure hole must be closer for people who lack stamina and breath support of a professional flutist in full training). Professionals often forget the important fact, that not every flute player can use the same force of air be it because of less practice time or physical limitations due to older age. To create a better understanding for the student's need, I started to use a left handed flute for my flute pedagogy students to give them the opportunity to become complete beginners on their own instrument once again. After that experience many problems in teaching beginners are solved for good!

About symptoms and limitations I also draw from personal experience. I had health issues to overcome in my 30 mirroring symptoms of the ageing process (mild arthritis in fingers, problems with vision, numb fingers, fatigue, stiffness, posture problems, muscle pain and neurological symptoms. I can relate to some of the issues in this topic on a very personal level and know that improvement is always possible. Also I experienced flute playing injury from over practice which I managed to solve with intensive yoga practice.

THE BODY OF THE AGEING FLUTE PLAYER

Concepts of natural ageing observe in music lessons:

Healthy ageing means to reduce unwanted side effects of ageing. The aim of healthy ageing is to keep the physical and mental health, avoiding illness and to stay independent and active. Healthy eating habits, good nutrition, movement and sport, staying mentally active and psychologically young. Ageing is a slow, continuous process starting at early adulthood, with "old age" starting internationally around 65 years of age.

- Chronological age is entirely based on passed life time and is just a number.
- Biological age takes the natural changes in the ageing process into account. Some people might be of old age at the age of 65 whereas others will live a decade more until they reach this category. The differences depend on lifestyle, habits and subtle consequences of illness.
- Psychological age is based on a person's actions and feelings. Someone can be psychologically young despite an age of 80 or older if he/she is working, planning activities and living a full life.



Life expectancy:

If we look at life expectancy today a man at 65 is expected to live to about 83 years a woman at 65 to about 85 years. The average life expectancy is going up in years, but the maximal possible life span seems unchanged over the years. The probability to live to 120 is still very small. Madame Malmet (1875-1997) is still the longest living human with 122 years. Life expectancy depends on:

- Genetics, Life style, Environment, Medical care

... nowadays it should still be possible to fit Anders K Ericsson's 10.000 hours of flute practice to become an expert flute player if you start at 65!

Details of this natural ageing process and challenges for flutists:

Apoptosis is the programmed cell death, a natural process. Cells are surrounded by telomers, which shorten with every cell division. When a cell stops dividing it reals Seneszenz (cell ageing). The function of the organs of course depends on the function of cells in the organs. Most functions in the body are at a high point at around 30 years and slowly deteriorate, however mostly the capacity remains higher than needed (functional reserve).

- **Joint:** Osteopenie is a slight loss of density of bone material (a high loss is called Osteoporose). This is due to hormonal changes after which Vitamin D and Calcium are not as well resorbed. This concerns the vertebrae of the spine, femur, radius and ulna joints at the hand. The Cartilage around joints becomes thinner also through excessive movement and the joint can get injured easier, called Osteoarthrose. Impaired movement in the joints. Impaired mobility of hands or fingers as mild to severe forms of arthritis. → **Solutions: comfortable dress, comfortable shoes. Maybe use ergonomically furniture (if student is playing sitting down). Focus on balance, ease and effectiveness in flute technique (incorporate rockstro concept and use props). Finger yoga exercices (Mudras), exercice with Baoding balls or similar items.**

Practical Tips for joint problems:

Baoding balls or two to three golf balls in one hand are a good way to exercise the hands before flute practice. Historically, people of all classes and ages used Baoding balls, from emperors and soldiers to children and artisans. Originally, a pair of walnut shells was rolled in one hand to increase strength and dexterity. This exercise builds hand strength through resistance training and trains the mind to use the hands with deftness and patience. It's a simple practice - one holds both balls in a single hand and carefully rotates them. Fine muscles and tendons in the hand come alive to carefully grip and manipulate the balls over one another, which stay in contact throughout. As the hand gains strength and the user becomes more adept, the balls can be rotated without touching one another, and manipulated in a variety of increasingly challenging ways.

Also, changes in diet and supplements can provide relief in this area. With the help of a health expert, these issues can improve over time and the exercise provided with flute playing will further benefit.

Attention: at the beginning of flute practice of course, these issues might flare up. Here it is important to find relaxation and a playing position as comfortable as possible. Ring keys can be covered with tape and keys can also be lengthened if necessary.



- **Posture problems** can occur in the upper vertebrae of the spine, the head tilts forward and the throat gets jammed so swallowing can become problematic. The spinal discs dry up and people become shorter. The ligaments lose elasticity and feel stiff. The conclusion is less mobility. Ligaments may tear more easily and the healing process is slower because the cells are less active. Posture problems like having back and shoulder problems. → **Solutions: incorporate body techniques like Resonanzlehre, Body mapping, Alexander technique, Feldenkrais. Warm Up and Break sessions.**
- **Muscle loss:** The amount of muscles in the body slowly reduces from age 30 due to hormonal changes with less testosterone and growth hormones. However, the ageing process only accounts for 10-15% of this loss. With regular movement and sport, additional damage can easily be avoided. At the age of 75 usually the percentage of body fat is double. Too much body fat comes with risk of health issues such as diabetes. Healthy diet and regular movement can counteract this process. → **Solutions: Incorporate Yoga exercises such as Iyengar Yoga (medical yoga).**

Practical Tips for Posture – Balance

First - pick the right instrument / head joint and set it up for success. Consider the Rockstro position as an option (for about 75% of flute players it is a good solution for better balance, better tone and less loss of energy). On www.petramusicflute.com you can find a very detailed article on this topic. I will work with all the participants individually to find the best setup. Then use any help the player can get – thumb rests, finger saddles, maybe lefreque sound bridges, in more severe cases use “loop instruments” or modified flutes and flute holders. Here we will look individually at the players needs. The stretch of the left arm is often a big problem for people with injured shoulders. On the baroque flute or piccolo of course it is already a lot more comfortable. I would advise people to forgo this stretch in practice and use props to relax the left elbow in practice (at least a small part of the practice time). Allow for alternative fingerings as often as possible (see Debost’s article on fingering). The pinky of the right hand is only essential for e and eb and other than that of very little use. In one diminished seventh chord it is possible to keep the 4th finger of the right hand down to provide more stability. Changes from c-d also can be played with fingers on the right hand. c# to be in tune can also benefit of additional fingers.

- **Eyes:** the lens becomes more rigid, so objects that are close are harder to see, the lens becomes more dense, seeing in darkness is harder, the pupil is slower in adjusting to light changes, the lens changes colour to yellow so colours appear differently, eyes produce less amount of tears and become dry, less nerve cells create less depth in the vision, mouches volantes. → **Solutions: Bigger print outs are essential! More light with more sources of light (use stand lights), use reading glasses!**

Practical Tips for overcoming poor vision: not only for senior flutists an A3 copy machine can provide a lot of relief. When we read music on small print our eyes become strained and this strain follows through the entire body. Making an enlarged photocopy of the music can be the key to a relaxed playing experience also for younger players. Playing by ear and memorising can also be very beneficial to adult learners. Without the connection to the sheet music it is easier to listen to the tone and rotate your focus to all areas of flute playing. Using improvisation and loops can also be a fun way to overcome this issue. Mouches volantes can be irritation, when reading sheet music. Easy steps: Bifocal glasses, better lighting (3x more as needed for a 20 year old), more contrast and larger print in sheet music (no blue background, no blue print).

- **Ears:** Higher overtones might not be perceived (Presbycusis – age induced hearing loss), consonants can not be heard as well as vowels with hearing loss, background noise make it difficult to understand speech well.



- **Mouth and nose** less tasting cells, so less taste / smell, less saliva produced / dry mouth, gums are receding, teeth are more sensitive. Skin becomes thinner, less elastic and dry, loss of collagen and elastin, skin can break easier, less nerve endings in the skin, feeling less, vitamin D can not be produced *as easily*. **Embouchure challenges due to less elasticity in the lips, dry mouth** → **Solutions: incorporate practice from speech therapy, have a drink on site.**

Practical Tips for Embouchure: Hydration is of course very important, so my advice would be to make sure you are well hydrated. Water alone can be problematic, also sweet juices are counter productive. Water with lemon is excellent in hydrating the body. The issue of "Dry mouth" is also related to nerves, so also a calm environment is the key to happy fluting. Adrenalin is special topic – keep eating a piece of fruit every few hours, before a performance bananas are a great secret! With a relaxed setup and a good flute technique the air speed and air volume is regulated in the body rather than in the embouchure. With good technique and air management / support embouchure problems become less apparent.

- **Brain:** less nerve cells in the brain, but the brain can compensate for this loss: new connections in the synapse, new nerve cells in certain parts of the brain – the brain has more cells, than needed for most activities (redundancy) less blood circulation in the brain, maybe slower reactions, need more time to complete a task. → **Solutions: provide breaks (chunking breaks transfer the learned content into longterm memory).**
- **Heart and Lungs:** Tendency to high blood pressure, loss of strength, stamina, breathing muscles become weaker (diaphragm, intercostal muscles), less alveoli and capillaries, less intake of oxygen. Liver becomes smaller, less cells, less blood flow, liver enzymes are less efficient, less power in detoxing. Decreased breath support due to asthma or lung problems and / or lack of endurance and strength → **Solution: Use medical breath trainers, breathing exercises from Yoga (pranayama – always supported by strength training to avoid exhaustion).**

Practical tips for gaining strength and endurance:

BKS Iyengar was Yehudi Menuhin's Yoga guru. His health yoga method is today a widely acclaimed and accepted healing method. In his book "Pranayama" the master explains the unimaginable healing power of breathing work. But at the very beginning he cautions the reader stating, that this great healing method can also burn and destroy the individual when not used in the correct way: First the body must be strengthened enough by the practice of the most common yoga positions so the body is strong enough to deal with the breathing work. When we then look at the way the different breathing techniques are used it becomes clear, that all of these are very similar to the different tasks, that we perform on the flute. Reading this was an eye opener for me and I would never teach a flute student without passing this advice on! Especially with adult amateurs I find this extremely important. The yoga positions in Iyengar yoga are practiced with props and modifications so that everyone can benefit from them regardless of their physical challenges or limited strength. There are also medical breath trainers, breathing bags and devices which can help with these issues and improve breath volume significantly.

- **Endocrinal system:** less aldosterone – dehydration, insulin less effective. → **Solutions: students may benefit from more frequent breaks, eating a snack or having a drink.**



Benefits of flute playing to reduce the natural ageing process:

- provides training for the breathing muscles
- exercises hearing and vision
- creates motor memory and new neuronal pathways in the brain across hemispheres
- exercises small muscle groups (embouchure, fingers)

Recommended lifestyle habits for lifelong fluting

- Warm Ups – BKS Iyengar writes on page 10 on the importance of strength building before learning pranayama (similar to flute playing breathing)
- find a medical professional to get a personalised plan in nutrition and detox . Nowadays there are also specialist doctors for athletes and musicians. Also alternative practitioners can have a big impact. Personal training can be very beneficial; health insurance providers often have affordable plans.
- Make up for the loss of absorption of certain nutrients by the ageing process and the physical exertion of flute playing. Examples are Omega 3, Vitamin D, B12, Zinc, Magnesium, Kalium, Vitamin C,
- incorporate detox routines in your life style and find a diet that fits you best (often people have intolerances to certain foods, which can affect the development of arthritis)
- hydrate well before / during practise and follow a healthy diet

MOTIVATION AND SPECIAL NEEDS OF ADULT FLUTISTS

Experienced learners enjoy ...

- a well developed musical understanding and experienced in audiation (clear musical goals)
- having clear aims in playing (repertoire, ensemble settings)
- the social aspects of being involved in community music or self organised ensembles
- the financial stability in achieving these goals (getting a good instrument, music, travel)
- being experienced learners, wide range of professional background

Adult Amateur flutists and beginners on the flute...

- might just be in love with the sound of the instrument
- might have started to play as a child, but had to stop with increased demand of time in family / professional life
- might have found the deserted instruments of their children at home
- might be eager concert goers and very knowledgable about the repertoire of different musical epoches / styles
- might be proficient musicians on different instrument
- might want to take part in an orchestra or band or play with friends



AGEING AND CREATIVITY

The “flow” psychologist Mihaly Csiksgentmihalyi explains that these side effects are still evenly balanced in the ageing process:

“Fluid Intelligence” (learning new things quickly) is turning into “Crystallised Intelligence” with one can adjust very adequately to new situations and being more sensible in decision making. This way of thinking is improved with age and comes with more life experience!

What can we as teachers take from this? What do our students want?

We want to create creative musical learning experiences in every lesson. The experience of making music together should be the focus in every lesson. For that we need a broad knowledge of the flute repertoire and the musical focus in each style. We need to create opportunity for knowledge and skill transfer from one lesson to the next; from one piece to the next. We need to enable adult students to recognise patterns and chunks in music theory and transfer these skills onto every piece or study. We need to enable our students to practise well and teach themselves!

Practical Tipps:

Introduce the three different diminished 7chords early on! Teach the students to recognise the pattern in studies and pieces so they can quickly adjust and not read every sharp/flat with huge effort. Use tritone based scales like whole tone scale and chromatic patterns.

Focus on understanding the music! Enable and Empower your students to easily reach their musical goals with making it easy in any way possible! A good instrument, well adapted material, improvisation games...

Links:

Flute cushion: https://www.adams-music.com/en/accessories/thumb_rests/flute_cushion_flute

Lefreque Sound Bridges: <https://www.lefreque.com/>

Jupiter Loop Flutes: <https://www.jupiter.info/loop-konzept>

Solexa Thumbports: <http://www.thumbport.com/product.html>

Time for basics / Rockstro position in depth article by Petra Music

https://www.petramusicflute.com/_files/ugd/4ee36b_6f578f989f4c4d34bdda93022e3f40f7.pdf

Light on Pranayama (see page 10) <https://mantrayogameditation.org/wp-content/uploads/2019/12/lyengar-BKS-Light-on-Pranayama-OCR.pdf>

Baoding balls: <https://insighttimer.com/blog/baoding-balls/>

Theory of healthy ageing: <https://www.msmanuals.com/de/heim/gesundheitsprobleme-bei-%C3%A4lteren-menschen/alterserscheinungen>