



# Sitting

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## Finding your sit bones / Finne sitteknutene

How we sit when we play an instrument and sing, has an impact on the coordination that we end up using when performing music. Gravity will always pull us straight down, meaning that if I tilt my pelvis, my spine or my head forward, backward or to one side, I will have to hold my position with certain muscles all depending on the position in relation to the gravitational pull. Therefore, making sure that we have a stable foundation in our sitting is highly important. What makes sitting very special to musicians, is that most of the time we need to sit in a way that gives us a possibility to move, be flexible, express music and communicate with other players or the audience. It is not enough, or even a goal to be seated in one particular position, ending up with feeling correct, but maybe stiff or restricted. That is why we need to think differently about it, and really consider what can help us both with maintaining health and to play better all in one.

To take the time needed to learn to sit and to train all the possibilities we have for different variations on sitting, is important. To have all possibilities available it is good to do all seated exercises, including the "Hip melter", "Sitting like a mountain", the "Seated shuffle" and the "seated iliacus" exercises. But we need to start somewhere, by finding the perfect place to balance from. The reason for this is the tendency to lean back, or slump, which will give restrictions when it comes to shoulder movement, breathing and muscular health. What you want to avoid, is only "sitting up straight", as this will not feel comfortable if the other aspects are not taken care of.

### Step by step

- Make sure you know how the sit bones look on a skeleton or a picture of a skeleton. Observe also how the tailbone is not a weight-bearing bone and that the sit bones are far more suitable for carrying weight, and that we therefore need to find the best point to balance on them
- Use a flat and somewhat firm chair similar to a piano chair
- Sit down towards the edge of the chair with a slight curve in your lower back; imagine you're a concert pianist, gracefully flicking your tailcoat while taking your seat (*fig 1*)
- Make sure you have free movement in the hip joint. Either wear loose fitting clothes or pull up the fabric on the thighs and open the zip (when you are in a private practice space of course)
- Create more space for the sit bones by grabbing and pulling the muscles and skin close to the sit bones back and away from the sit bones. (Since the clothes automatically pulls the





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skin forward, you can even put your hands inside your trousers to get a better grip and pull the skin back – maybe not in a concert or an orchestra rehearsal though...)

- Now, sitting down, place your hands flat under your pelvis. Notice the two skeletal protrusions that are the sit bones. Tilt the pelvis back and forth and observe what's happening to your sit bones. (They move forward when tilting back, and back when you tilt forward) Put your right hand on the left side of the top of the hip bone on the side of your belly; the bone between your hands – from the sitting bone to the hip bone – is one bone
- Remove the hands and see if you can feel the sit bones touching the chair
- Experiment with the difference of raising up your back to "sit straight" rather than to move from the pelvis. The latter should feel more relaxed and less tense in the spine and breathing
- Make sure you're ending up sitting a little bit in front of the sit bones, not on top of the area that you can feel the most into the chair, maybe feeling that you are slightly leaning forwards. Look in the mirror to see if this is the case, or if it just feels like it. It could be how it feels when coming out of a habit of leaning slightly back
- It should feel effortless once you find the right spot to sit
- From here you can start doing the "Sitting shuffle" – exercise, then move on to the seated "Hip melter", "Sitting like a mountain" and the "seated Iliacus" exercise to get more benefits from sitting

Remember that these are all ways to sit when playing. It is not dangerous to sit slumped (Fig 2), but staying there to play for extended periods of time is not good for physical and mental health. Then it is better to sit on the sit bones (Fig 3)

Throughout the rest of the day, try to create more variations of sitting.



Fig 1



Fig 2



Fig 3





## Sitting shuffle / Sittende skyveøvelse

As musicians we need support and power to play and sing. Not only relaxation. However, the great thing is that when we get support from the right places in the body, it will feel more relaxed, even if we are still using muscles to hold ourselves in an upright position to play. If we are playing technically demanding pieces, pieces with high intensity of emotion or pieces with jumps or quick changes, we usually need more support. It is possible to get this from using the sit bones actively in the way you can do in this exercise. The "sitting shuffle" exercise is also great to give proprioceptive input to the brain, so that coordination generally is improved. The mental benefit that many musicians sense when proprioception is improved and the signals from the body/contact with the surface (in this case the chair) are increased, is a decrease of stress – for example in concert situations.

It is great to combine this exercise with the seated "Hip melter" exercise to avoid too much tension in the hips.

### Step by step

- Sit on the sit bones, on a level, firm surface like your classic piano stool (see sitting bone exercise)
- Push one knee in front of the other, then the other, back and forth
- Feel how the movement pushes you up to tall sitting
- Let the body follow naturally, without actively moving the torso
- After going back and forth maybe 10 – 12 times, stop the movement and sense into how it feels to sit now. Do you feel more weight going into the chair? More contact between the sit bones and the surface of the chair?



*Sitting shuffle: one knee forward, sitting bone down, body rises up*

### PART 2 – implementing into playing

- Find your favorite sitting bone (the one you feel best or is most comfortable), move and hold this knee forward (without tensing up in the hip joint) so the preferred sitting bone digs into the chair





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- Lift your instrument and feel the extra weight into this sitting bone even just by lifting your arms/instrument
- Switch legs and see how that feels
- While playing, go back and forth slowly, maybe a bar of music per leg to begin with
- See if you can use this movement to create the phrasing and sound that you want. The musical initiative can come from the sit bones instead of stabilizing and tensing up in other places of the body, for example shoulders or thrusting the ribs forward
- As you get used to actively engaging the sit bones, let your body have this more as a natural possibility for expressing music than something that you feel that you have to do very consciously

### Advanced

- Instead of pushing the knees forward, focus on only pushing away from the chair with the sit bones
- Feel that the body is rising up from the sitting bone
- Try this while playing



*Pushing the right knee forward to connect to the right sitting bone*





## Heel walk / Gå på hælene

This exercise helps with finding the heel-glute connection. That is the effect that standing and walking should have on your gluteus maximus – the deeper part, not the whole muscle. This muscle is right behind your sit bones, and its function is to do extension in the hip joint. This is a movement that we do even just standing up from a chair or keeping a standing position. However, the gluteus maximus is sometimes not as active as it should be, as other muscles start compensating instead. As musicians playing in standing positions, it can be hugely beneficial to connect to this muscle and the influence from the feet, as it will give a much more healthy and secure stance and more options to move with the music. Instead of only bending the knees, one can now get muscular support by also standing straight and strong, using the heel -glute connection while playing and singing. This is also possible with high heels if the situation requires it.

### Step by step

- Sit on a chair
- Find your sit bones
- Push one heel into the floor and feel the activation of gluteus maximus slightly posterior from the sit bones (see picture if uncertain)
- Alternate between the heels and feel how the muscle tenses up where you're sitting
- Put the feet in a position where you're ready to stand up (further back) and start with pushing the feet to the ground and feel the activation again, now both sides simultaneously
- Slowly stand up while sensing the activation of the gluteus maximus to make sure it's still engaged all the way up
- Walk around the room on your heels, knees slightly bent and torso slightly forward to keep engaging the muscle
- Stand up and feel that the gluteus maximus is still active through a push-off from the ground

### EXTRAS:

- Stand on your toes and walk around on them. This is also great for overall foot health, and to connect better to this part of the foot in general.

### PREP EXERCISES:

- "4 foot exercises" is a great preparation exercise to do before any standing and walking, also before this exercise.







# Whole body exercises

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## Bouncy / Bouncy

Musical expression requires a fine sense of movement and distribution of muscular activation and relaxation. This exercise can help you to find an even activation of the deep muscles in your body that can help with musical expression from a full body experience. By distributing a subtle activation throughout the body, we don't need to overly tense up local areas (such as shoulders, wrists, fingers or holding the breath) that can become tired from creating the musical expression, or supporting the technique, alone.

### Step by step

- Jump up and down in a comfortable pace, approximately 7-10 times
- Find the right sound when the feet hit the floor, not too loud
- Sense that the activation distributes in the whole body to make the jump coordinated and "elegant"
- To illustrate what happens if we are not in the gravitational line, and to feel how the whole body and alignment matters:
  - Jump hanging with the hips forward, feel the uncomfortable impact in the back/hips
  - Jump with head forward, sense how even the feet and jumping itself is affected
- Go back to doing it in the gravitational line/in the natural way
- Repeat about 3-4 times, stop the movement, but keep the distribution of tension, lift your instrument and start playing! Or lift the imaginary instrument during, before and after exercise pose



*Bounce upwards*



*Landing still and with slightly bent knees*





# Torso

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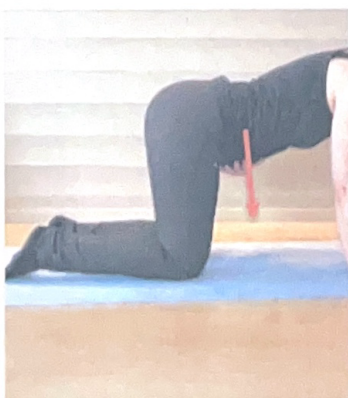
## Belly up and down / Mageslipp

There are some muscles in the body that do not create movement in the joints and limbs but have functions such as creating internal pressures to support the spine in a healthy way. The transversus abdominis is one of them, which you will get to know in this exercise. The pressures created by this muscle (and some more muscles with it) help with healthy movement, support and breathing. You will see that activating this muscle will only make the muscle become shorter and create a sort of belt or stocking around the abdomen/belly that pulls the intestines and organs together (belly up). Now, the abdomen is like a balloon. The content is constant, there is nothing coming in or out of the belly even if it is changing shape in this exercise.

The transverse abdominis muscle also contributes to the last part of expiration, or to the control of controlled expiration (as in playing a wind instrument or singing) and in expiration against resistance (a mouthpiece). However, it should be possible to activate this muscle independent of breathing, as it also has functions for stabilizing the torso when doing movement – like lifting the instrument or lifting the arms toward the instrument. A functional transverse abdominis will actually anticipate all movements of the limbs by naturally activating 30-40ms before the movement can be seen on the outside. The specific awareness-exercises for this muscle can help to regain this natural function and therefore contribute to better overall coordination.

### Step by step

- Stand on all fours
- Release the belly down towards the floor (let the belly out)
- Draw/pull the belly button inward, towards the spine
- Repeat 3-5 times
- For a deeper sense of the exercise, visualize the transversus abdominis muscle while performing the exercise (as seen in anatomy pictures)
- For more strength, draw the belly inward, then lift your knees slightly off the floor, hold for 5 seconds and release slowly back down again. Try to keep the ribcage relaxed. Repeat.







## Transversus differentiation (supine, sitting and standing)

### Transversus differensiering (liggende, sittende, stående)

The transversus abdominis is an important muscle for all musicians, even if it does not do any skeletal movements on its own. It supports all movement and breathing and is an important foundation for a good overall coordination of the torso and limbs. For example, if we want to sing or play stronger, it is very beneficial to start the initiation of the extra power needed in a deep place, deep in the belly, including the transversus abdominis muscle. This will offload other areas that tend to tense up for musical expression, such as the neck, shoulders and wrists. Besides, it tends to sound even more natural and powerful when the initiation of musical expression comes from a deeper place.

The transverse abdominis muscle also contributes to the last part of expiration, or to the control of controlled expiration (as in playing a wind instrument or singing) and in expiration against resistance (a mouth piece). However, it should be possible to activate this muscle independent of breathing, as it also functions to stabilize the torso when doing movement, like lifting the instrument, or lifting the arms toward the instrument. The intra-abdominal pressures created by this muscle (and some more muscles with it) helps with healthy movement, support and breathing. A functional transverse abdominis will actually anticipate all movements of the limbs by naturally activating 30-40ms before the action of for example lifting an arm. The specific awareness-exercises for this muscle can help to regain this natural function and therefore contribute to better overall coordination.

#### Step by step

##### LYING DOWN:

- Lie on your back with the feet straight out or knees bent, whatever is most comfortable for you
- Find the ASIS (the bone sticking out the most in front of your hip bone) and put two fingers in the soft area of the belly just inside of it. This is where you can feel if you are using the transversus abdominis most differentiated
- Dig in with the fingers
- Rest the other hand on the navel, without pressing



##### PART 1

- Draw the navel towards the spine and feel that the activation of the transversus abdominis is pushing the fingers by the ASIS upward
- Gradually go from activating it from 0% to 10%, all the way to 100% - and slowly back to 0% again. When you are at 40% - 100% you will feel more and more of the other abdominals join the contraction, also the rectus abdominis







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### PART 2

- Find 20 – 30% activation and hold for 10 seconds (remember to breathe)
- Relax for 5 seconds
- Repeat 5 times
- If breathing is difficult, it could be that you should do the "Belly up and down" exercise for a while first, or try to back off on how much you are activating the transversus abdominis

#### SITTING:

- Find the SIAS (the bone sticking out the most in front of your hip bone) and put two fingers in the soft area of the belly just inside of it. This is where you can feel if you are using the transversus abdominis most differentiated
- Dig in with the fingers
- Rest the other hand on the navel, without pressing
- Release the belly out
- Draw the navel in by activating the lower part of the transversus and breathe normally
- Relax some seconds
- Slowly pull the navel in and out while pushing one knee forward to push the sitting bone into the chair (combined with the seated version of "The shuffle"). See if you can keep this tensegrity and connection to the ground, as though the power from the sitting bone is what helps to keep the transversus active. This way you don't have to hold



#### STANDING:

- Find the ASIS (the bone sticking out the most in front of your hip bone) and put two fingers in the soft area of the belly just inside of it. This is where you can feel if you are using the transversus abdominis most differentiated
- Dig in with the fingers
- Rest the other hand on the navel, without pressing
- Release the belly out
- Draw the navel and the lower part of the transversus in and breathe normally
- Repeat
- Slowly pull the navel in and out, while pushing one leg, and then the other away into the ground ("Standing shuffle")