

[Video Readthrough of the Post](#) - In a youtube video I talk you through the post. *You may prefer this if you struggle with reading this much text. You absolutely could text to speech the post or similar if you'd prefer a compromise in that regard.*

This resource consists of **voice and text**. You can read the text for a rough outline of what the voice training process could entail, but you need to **listen to** the relevant **voice clips** to gain the **most benefit**.

You are encouraged to **be flexible** with the order you **approach** these things. Just because something came up as an introductory task doesn't make it entirely lacking in utility later on. Nor are you required to approach things in the way presented here.

**If you want to jump straight in, scroll down a bit to 'Voice Training: Tasks+Goals'**

*You can just take it bullet point by bullet point (though you might find that skimming the post in general gives you a better feeling for what you'll eventually want to do).*

## Contents

- **What is voice training?** What is it not? And how can I make it as fast as possible?
- **Voice Training: Tasks + Goals** Introductory Tasks. Skill building. Voice building. Making a voice your own. Other voice training considerations.
- **(My)Voice Community and Teacher Recommendations**
- **Additional Resources**
- **Vocal Health**
- Acknowledgements

## What is Voice Training?

- Learning to **modify** your voice
- Getting used to using a **new voice**
- Looking after your voice and making sure that the one you are using is **functional** (more info on vocal health below)
- Something that **often takes months** and for many people takes even longer
- Typically, a process of **learning skills, applying them** in voice(s) **and refining** said voice(s)

### What is it not?

- You **can't 'just' do exercises** and expect results.
- You can't expect to learn it in one day. Spending **6+ months** is considered **normal**.
- It's not a very simple linear task that you can achieve by just following one simple tip

- You can't expect perfection. Different people come in with **different expectations**, and different people get **different outcomes**. Therefore, they reach **varying levels of satisfaction**.

### What should I do to make it as fast as possible?

- Ignore initial fears. The idea of **doing things wrong** is a **common fear** at the start, but that doesn't mean we should listen to it. A few considerations:
  - If the concern is paralysing then getting a teacher can often help (and to a lesser extent practising with others can too)!
  - **Habits are worse than moments**. A **moment** of discomfort, tension or a weird voice is **unlikely** to be a lasting **problem**. You should try to stop any poor habits from forming. In other words, if something goes wrong, take a break, try something else and come back to it with a bit of a fresh start. Or if it's not so bad, do a mini reset or two and try again.
  - **Tension** and **pain** are big signals that something is **wrong**. If they show up it's a sign you need to change something. But the good news is, if you **notice early** and **change things** you probably don't have anything to worry about.
- Actively **spend time thinking** about your **practice** and what you could be best spending your time on, **early on it's harder** to do this, but it **will get easier** as you understand and explore more.
- Make proper **use of the resources available**: ask questions, attend workshops, listen in on lessons, request feedback.
- Focus on **skill building** near the start because it acts like an **accelerant to progress** later.
- Make **recordings** of the voices you try and **try to label** what you **like** and what you **dislike** even if you don't have good words for it yet. (Does crimbly mean anything to me? No but could it mean something to you? Maybe? i.e. Your own subjective labels are fine to start with.)
- Ignore your **starting point**, as it's a **poor indicator of success**. [Further Explanation](#)

## Voice Training: Tasks + Goals

### At the very start - Introductory Tasks

- Consider if you want to get a teacher - **self training is viable** as a route to go down, but progress does tend to be slower than if you take a teacher. Depending on your own means and needs you should come try to come to a conclusion for yourself. (IMO it's **often worth getting 1 lesson** to set you down the right track and then consider self-training from there. But you absolutely can do without that. If you do opt to go for 1 lesson, then start it off by informing your teacher of your plan.)
- **Take in information**, but make sure you **don't spend all your time on that** - Look at resources, get a teacher, attend workshops and listen in on public lessons... But **practice too**.
- Build a **habit of voice training** - This is probably the **most important** thing you can start with.
  - **Don't go overboard**, Try to limit **session length** to **30 mins**.

- If that sounds way too long, start with something small and go from there. Ideally, you want to **eventually build up** to at least **100 minutes a week**.
  - It's good to allot some time for thinking about what would be the most productive thing to practice.
- [Clown around](#) - Building trust in your voice.
- Build up [Pitch matching](#) as a **skill** - [Tone Generator](#) to support in that
- **Get used to** feeling your voice in a state that **feels and sounds relaxed** - Try to use your voice in the most natural way you can, if that's a bit rough then consider looking at this [clip](#)
- Understand relative **importance of vocal health**: see section below (tl;dr **poor vocal health** makes things **harder** and may even **lock you out** of some **voices** until it's resolved)
- Pick up some **useful side tasks**(that you can continue over time):
  - **Look for** some **vocal role models** and make a **playlist** or two. **Voices you like**, and **voices** that **share gender norms**.
  - Spend some time actively **listening to voices**. **What do you notice?** You should **come back** to this **periodically** as you learn more. Without recognising things you like, it's hard to produce a voice you want.
  - **Record your voice**. You could do something like this: **Every day, make three recordings** of your voice. They can be **similar** to each other **or** totally **different**. **Save** the one(s) **you like** the most.
  - If you're **transmasc**, or otherwise interested in learning to lower your voice, Then, it's good to get into a habit of reaching for lower pitches. Preferably, you should keep a daily record of how far you can get. [Voice Clip](#) for **further advice** on this.

### Digging in Deeper/Ready to Learn More - Skill Building

- Familiarise yourself with how **pitch**, **weight** and **size** impact the voice. These are sometimes called '**sex-linked features**,' as they are affected by hormone exposure. Their **universality** makes them the most consistently relevant features in vocal gender presentation. [Voice Clip](#) In contrast, '**gender-linked features**' are **variable**, influenced by sociocultural factors like age, class and accent.
- **Try modifying pitch** if you haven't explored pitch matching already, some **voice clips with more info**: [a voice clip with more information on pitch](#) - [a video on vocal warmups](#), the most valuable way to explore pitch at this stage - [What to do if you can't modify pitch?](#) - [An exploration for changing pitch in speech](#) - [Considerations with regards to pitch in transmasculine voice training](#)
- Try **exploring vocal weight**. [Voice Clip](#)
- Try **exploring resonance/size**. [Voice Clip](#)

### Refinement of Control and Exploration - Building Voices

- Explore and try things out. Clips for explanation of how: [Exploration Clip](#), [Analogy: Explore voice like it's a city](#)
- Learn to **isolate** control of **size**, **pitch** and **weight**. Then further **refine** your ability to do so. [Voice Clip](#)

- Try **making distinct voices**, by altering the **mix of features**. **Mimicry** can also help with this. [Voice Clip](#)
- Consider **adopting a work-in-progress voice** [Voice Clip](#) (Try to prioritize comfort and sustainability!)
- Bring a focus on **consistency** into your explorations. Seek greater **deliberateness**, if things happen unexpectedly try get a handle on it. Smoothen out jagged edges. Look out for roughness, shakiness and general instability and work to gain a more **refined** sense of **control** in the voice. [Voice Clip](#)
- [The 'WOULD I PASS AS A ROBOT' test?](#)

### Selection and Refinement - Choosing a Voice and Making it Yours

- Understand the **distinction** between **sex-linked** and **gender-linked** factors in voice. I recommend you check [this older post](#) for **more details** on the topic.
- Think about **naturalness** and how it **interacts with** vocal **sex presentation and gender presentation**. Sex presentation, gender presentation, and naturalness are generally perceived as one whole. **Passing** (if desired) also **relies on** sounding **comfortable** and **practised** in the voice, as cis people generally signal familiarity with their own voices. Think about how this information may influence your voice training moving forward. [Voice Clip](#)
- Consider engaging in some **mimicry** of other voices if you haven't already. [Clip on mimicking stylistic features](#)
- **Dedicate** your attention to **one voice**. Explore its limitations, use it in different ways, in different contexts and see where its current limits lie. When it fails try to explore around and find solutions.
  - Aim to **habituate that voice**. Do so by **using it over others** and using it as **often as you can**.
  - Unlike the WIP voice you want to be more rigid with the application. Explore but don't go outside the bounds of the voice. i.e. **Make sure it sounds like one single voice**. [Voice Clip](#)
  - You **can change** to a **different voice** if you don't like it, but **try not to** do so too often at this point :D

### Other Voice Training Considerations

- **Trans masculine people** often need to spend time learning muscle memory to access the lowest and heaviest parts of their range, in a way that goes **beyond simply learning control**. It involves **consistently applied effort over time**.
- **Transfeminine people**, on average seem to **underestimate the importance of weight** and it's **relationship with pitch**. Especially when considering its **relationship with loudness**.
- Those **seeking androgyny** are going to suffer from choice - there are **many different** manifestations of **androgynous voices**. True neutral is far from the only option - [Androgynous Voices Page](#)
- Sometimes we're **tempted to artificially limit** our practice, for example, avoiding the full range of motion when making a modification (pitch, weight, size, etc.), avoiding falsetto, or attempting mimicry while trying to tamper with the accent. If you do this from the start, rather than after verifying you can do the task unmodified, you're

usually making things harder for yourself. Worse still, this can **sabotage your progress** by limiting the insights you gain from the task, which in turn leads to weaker control and less developed skills. [Voice Clip](#)

- Should I give up? Sometimes we may feel like we want to quit, here are some questions to ask yourself before you come to a decision. [Reddit Comment With Questions](#)
- **How long does voice training take?** [Link to a video from Renée](#) - some may label it overoptimistic but overall it does a good job!
- **Tips for Making Voice Fun** [Reddit Comment](#)
- [Additional exercise to support in removing breathiness if it becomes an issue](#)
- **Terminology and framing.** Why does this post use terms like **size, weight, and pitch** rather than alternative framings such as forward resonance; chest vs. head voice; thickness/thinness; vocal tract length; R1, R2, spectral slope; closed quotient; or larynx height? [Voice Clip](#)

## Voice Community and Teacher Recommendations

- **Adi(Me)/Trans Voice Coach**, [Discord Website Ko-fi](#)
  - Occasional public events e.g. workshops, Public Lessons you can listen in on
  - Some **recordings of past workshops and lessons** where students have opted to share them
  - Semi-frequent practice role pings (though you should absolutely ping if you want to find someone to practice with)
  - **British**
  - Pricing for lessons £18-40, Reduced rates on a case by case basis and pathway to get **sponsored lessons** if you truly can't afford them (join the discord and go to the gift a lesson channel for more info on sponsored lessons)
  - First come first serve system for lesson bookings.
- **TransVoice**, [Discord Subreddit](#)
  - The r/transvoice subreddit's **discord**,
  - **Fairly frequent VCs** and generally someone around to give feedback though response quality may vary
- **VoxNova/OVC**, [Discord Website](#)
  - **Frequent public lessons**, occasional workshops, fairly busy server
  - **American**
  - \$40-95(USD)
  - Teaches **singing** lessons as well
- **Sumi/Sumian Voice/Voice Art Project**, [Discord Website Wiki](#)
  - Some public lessons, a **practice club**
  - Fairly active community
  - **Australian**
  - Pricing \$38-45(USD), some free public lessons
- **Scientifically Augmented Voice/Savvy**, [Discord](#)

- Public lessons, **archive of past lessons**
  - **French**, teaches in **English and French**
  - Also teaches **beatboxing** (possibly singing too?)
- **Sweet\_Timbre/Possum Studios**, [Discord](#)
  - Occasional events
  - Teaches in **English** and **Arabic**
- **Lunar Nexus/Misty/Luneth**, [Discord](#)
  - Sever events, self training guide
  - **American**
  - Pricing \$37.50-130(USD)
- **VRC Trans Academy**, [Discord](#)
  - Active server, but **centred around VR Chat**
- **Scinguistics**, [Discord](#)
  - **Frequent events**, active server.
  - A **number of teachers** do stuff there.
  - The terminology and methods used there are often considered a bit out of date by the wider community
  - Mostly **American** teachers as far as I'm aware
- **TransNetwork/Zarrah**, [Discord](#)
  - **Fairly frequent workshops**
  - **British**
  - See server to book, still a fairly new teacher
  - **At time of writing** offering free public lessons(but this is set to change soon)
- **Trans Voice Lessons**, [Website](#) [Youtube](#)
  - **Multiple teachers**,
  - **American**
  - Wide pricing range
  - Lessons appear to currently be on waitlist
  - Group lessons
  - **Very well regarded** in the space
  - Semi-active discord (patreon locked)
- **Vocal Team/Altamira/Sean**, [Discord](#) [Website](#)
  - Lessons currently on waitlist
  - **American**
  - \$80(USD)
  - Fairly frequent events though some seem to be patreon locked
- **Fluid Voice Studio** [Website](#)
  - Pricing **\$7.50-25(USD)** sliding scale available on request
  - **Has worked with** a bunch of plural people and **transmasc people**, works with anyone though
  - **American**
  - Teaches **singing** too

## Additional resources

- [Renée Youtube](#) - Well presented videos

- [Sumi Wiki](#) - Lots of voice training info
- [Github Archive of Selene's Clips](#) - Many potentially useful voice clips.
- [Trans Voice Lessons](#) - Not many super recent, but lots of videos on voice training (The general advice will be better than the super specific videos on things like R1 as those are considered out of date.)
- [Transvoice.party](#) - site with links to further resources
- [Tone Generator](#) - Link to an easy web tone generator
- [Note + Hz](#) and [Note + Over Time](#) - Real-time Online Pitch Monitors. **Useful when first starting on pitch matching.**
- [Friture Spectrogram](#)
- [Prior Introduction Guide](#) - It's longer and has been called intimidating :D, has info on other aspects too. [The Older Version of That Guide](#) (is shorter than the other intro guide but has a section on finding privacy for practice if that's a concern).
- [My Youtube](#) - One or two videos, some old workshop recordings, some useful playlists.
- [Zarah Workshop Recordings](#)
- [Trans Singing Subreddit](#)

## Vocal Health

The main benefit of maintaining **good vocal health** is that it tends to make **voice training** much **easier**. And the fact that it often makes the voice feel more **comfortable** is reason enough to maintain it. It also significantly **reduces the risk of injury during practice**. Some issues left **unattended can spiral** to the point you need voice therapy or even surgery.

### Simple Do's and Don'ts

Do:

- **Aim to stay hydrated** before voice training - the benefits of drinking water are felt after 20 minutes but aren't fully realized until 4 hours later
- **Get enough sleep**
- Aim to **use your voice for at least an hour a day** (else you risk becoming a [vocal underdoer](#)).
- Consider working in [stretches](#) and vocal [massage](#) (especially if you experience tension)
- Aim to engage in **VFEs/Vocal warmups involving SOVTEs** ideally **every day** (you can also split this up into moments dotted through the day, though there are benefits to doing some all at once)

Don't/avoid:

- **Don't ignore issues** like **roughness, breathiness, excess mucus or frequent throat clearing**. These are usually **signs something is wrong**. Sometimes that may be [silent reflux](#), though it can be other things. E.g. Allergies, exposure to contaminants, the result of vocal use problems and a lack of hydration - you should

look into these and do what you can to mitigate where possible as it can **make voice training harder**, or the **issues can grow worse**.

- **Don't ignore pain or tension** (because it can eventually result in permanent harm, especially if habits are formed around pain and tension).
- **Don't practice for excessive lengths of time**. Try to **avoid whispering and yelling** over loud environments. Aim to keep intense practice under an hour, though lighter forms of practice like talking with others would be fine to engage in over an extended period.
- **Avoid smoking, vaping, drinking and excessive caffeine intake**, reducing is better than nothing, if avoiding them entirely won't happen.
- **Avoid/limit vocal configurations that can cause harm** e.g. whispers, yells, breathy or rough voices. You may want to explore these features but it's generally better not to include them in any voice you plan to use for an extended period, as they are typically less sustainable and can cause harm.

One bad moment usually won't cause permanent harm, but the **risks increase** significantly the longer a problem goes unaddressed.

### SOVTEs, VFEs and Vocal Warmups

- [Vocal Warmup Video](#)
- [What are SOVTEs?](#)
- Example VFEs:
  - Slide on a SOVTE from **lowest to highest**
  - Slide on a SOVTE from **highest to lowest**
  - On a SOVTE, sustain a pitch for as long as you can, aiming for heavy. **E3 - F#3 - G#3 - A#3**
  - On a SOVTE, sustain a pitch for as long as you can, aiming for light. **E3 - F#3 - G#3 - A#3**
  - *these notes are just examples, you can select any that are in a comfy range and evenly spaced.*

### Additional Vocal Health Resources

- [Vocal Care](#)
- [Vocal Hygiene](#)
- [Other Reflux Article](#)
- [Swelling Checks](#) - Keep track of your vocal health

### Acknowledgements

- Thank you to Sprin and Shay for once again doing some proofreading for me <3
- A big thanks to TVL, Zhea and Clover especially, for their work on putting together the size, weight and fullness model.
- Thank you to all the other teachers and practitioners in the space who have communicated with each other and contributed to the more mature space that voice training has become over the last 5+ years. It's been really great to work in this space as our collective understanding has matured. While not everything is perfect, it's a

whole lot better than when the best advice out there was vocal warmups + swallow and hold ha ha.

[Link to Reddit post](#)

[The Google Docs Version](#)

[List of the links](#)

[Link to my website](#)

**If this helped you, pass it along to someone who's just starting out!!**

**If you're stuck, leave a comment and I'll aim to reply where I can, otherwise I'd recommend you join some of the discords listed above!**

## Pause a sec

You've entered the old guide. Past here is less useful and relevant, but there may be some explorations you want to try out. Leaving it at your discretion to approach responsibly.



Read this first - this is way more up to date than some other stuff, but its also not actively being kept up to date

Hey everyone, I want to highlight some things right now, before you get started reading this. I made this guide almost over three years ago and I no longer recommend it as a primary resource, It's definitely not the worst, but like many of the others out there I consider it to be outdated. If you are looking to play with more feminine presenting voices then I would recommend getting started here <https://www.youtube.com/watch?v=BfCS01MkbIY> and if you're interested in exploring more masculine voices I would recommend getting started here <https://soundcloud.com/adi-phoenix-658511988/voice-masculinsation-rundown> This being said there is some stuff in this guide that may still be worth having a look at.

There are a list of exercises to play around with here and U can do that. But What I think we need to acknowledge is you cant just do an exercise and throw it at the wall. When we do an exercise we are trying to use it to break a barrier or explore voice further.

When using exercises our preference should be to generally make them voiced where possible. And when using things like voiceless exercises we should try to tie them into speech as much as possible. For this reason if you are a transfem playing with resonance I would recommend the vowel scaledown exercise as a primary focus, as opposed to any of the other voiceless exercises. Our goal is not to achieve any maximum value in one thing, but optimise our voices for speech and general control.

For this reason if you are transfem I would recommend trying to go for clean soft non breathy sounds first, before you focus on resonance, mostly because it has a tendency to make things harder to fix afterwards.

Final point before you continue. Where possible interaction with peers or teachers is optimal, training with others and getting feedback from others is what you probably want to do. For this purpose I would recommend joining some of the discord communities out there (ones I recommend listed in this post [https://www.reddit.com/r/transvoice/comments/mgaci7/solid\\_introductory\\_voice\\_training\\_resources/](https://www.reddit.com/r/transvoice/comments/mgaci7/solid_introductory_voice_training_resources/)) and maybe consider getting a teacher (also suggestions listed in the post) If you would like to get lessons with me specifically then you can learn more by taking a look at my kofi here <https://ko-fi.com/adi> or join my discord here <https://discord.gg/qDjZ4VHb>

This guide you see below is not useless, and actually has some of the more up to date information for the text-based guides. However, I don't feel that it fully aligns with my current ethos, and I simply don't have the time to update it right now though a medium term goal of mine is to release a completely revamped guide which should much better display my thoughts and advice on the matter.

## Preface

Hey so before you start reading this guide work in progress (more of a compilation really), I think there are a few things worth mentioning, its creation wouldn't have been possible without the tireless work of many many people who contributed in either in large or small ways, now I won't be able to get into all of them so I will just pick out a few.

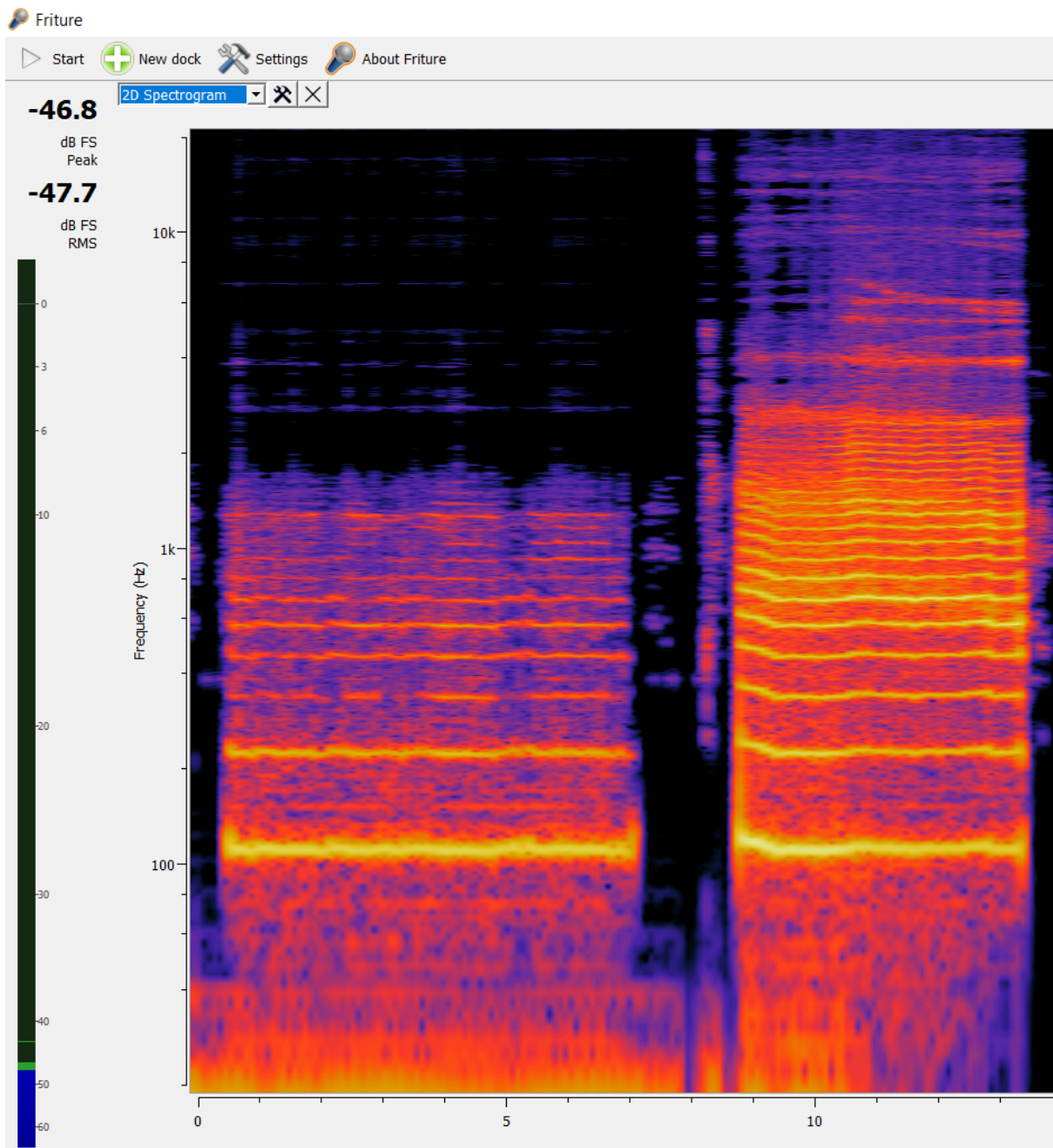
The first one that I feel like I should mention is Z. Z is in many ways the founder of modern trans voice work, she's a pioneer in the field and one of the first heavily successful trans voice teachers, she is accessible for lessons but her wait list is long. You can check out her youtube from here [TransVoiceLessons youtube channel](#) it's a great place to look if you would prefer a video format. The next few are all of the folks over at the Scinguistics (<https://discord.gg/w6Eb2tY>) discord server, Kelly (currently on hiatus), Charles, Savvy teach over there and offer trans voice lessons, there are of course many people in the community who contribute in other ways, like Sprin who you will probably find in chat at times, who is in many ways a glue that holds everything together. Then there's Nick and Wellington who can be found over at the Online Vocal Coach (<https://discord.gg/PMGBH34>) discord server, who also teach trans voice. Both of which have been instrumental in my own understanding of the topics discussed here. There are also many other people who have had a large influence, like Lsomething something who has acted as one of the earlier providers of more productive trans voice resources, and uses a different approach to many of the other creators. So thank you to everyone I mentioned and thank you to everyone else who I didn't quite catch.

## Introduction

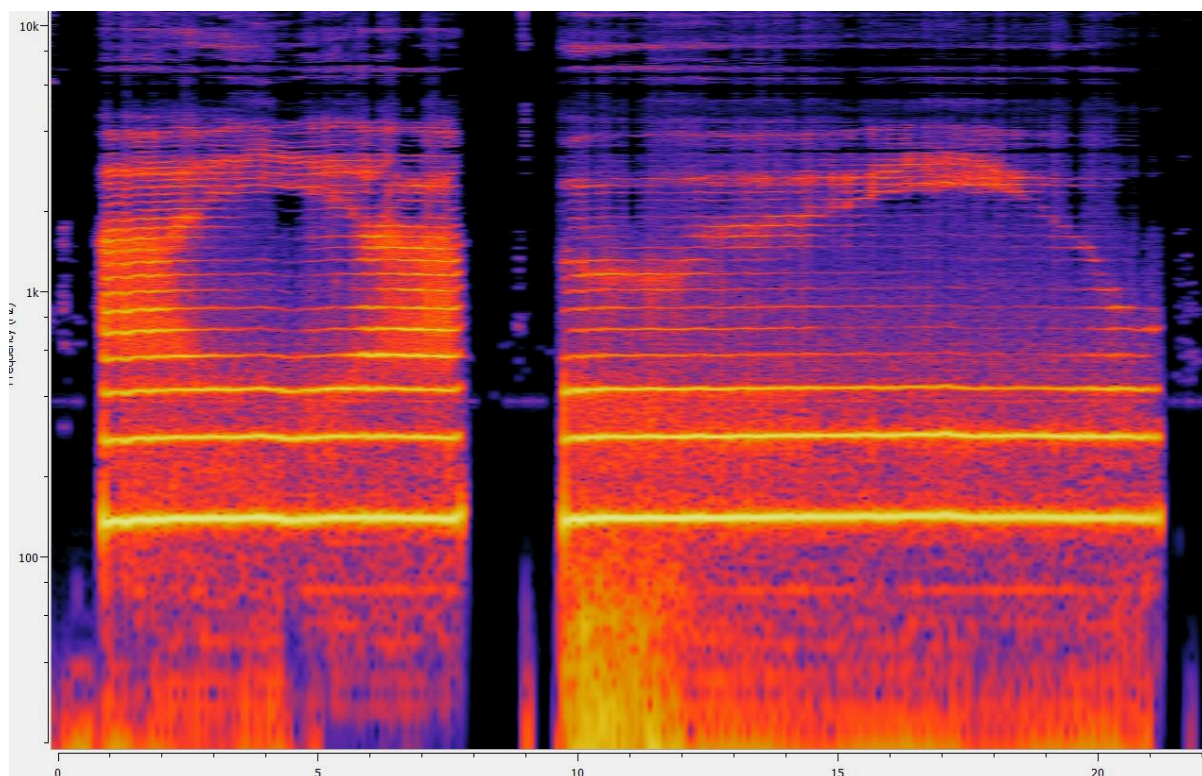
AMAB people who go through a typical male puberty on average have a vocal tract volume 20% larger than that of non-testosterone-exposed people, alongside an increase to both the mass and length of the vocal folds. The change in the vocal folds when exposed to testosterone helps in being able to produce lower pitches, lowering your pitch average, and also producing a stronger harsher sound (read the next bit while referencing the image below) which can be understood through the idea of spectral slope. The softer the sound, the steeper the spectral slope (the faster the higher harmonics are lost), a shallower slope means that the sound is harsher and that the higher frequency harmonics are more visible).\*\*

So what is a harmonic? Well looking at the image below you should see a series of lines which seem to get closer together the farther you go up the image (the scale is logarithmic so they are actually evenly spaced frequency wise) The bottom harmonic is the frequency of the sound we hear, so if someone is speaking at an A2 then their vocal folds would be coming together 110 times per second and producing a sound with a pitch of 110Hz. On the image below if we look at the bottom lines then those represent about 110Hz and that's the first harmonic of this harmonic series, it theoretically goes up infinitely but as we see it loses a lot of power as frequency increases, and follows this pattern, the 2nd set of lines(2nd harmonic) 220Hz 3rd set(3rd harmonic) 330Hz 4th set (4th harmonic) 440Hz.

audio accompaniment to image <https://clyp.it/jr4nd52k>



In addition to being larger in volume AMAB vocal tracts are also typically longer, being about 17cm average while AFAB vocal tracts are on average 14cm. The shape, volume and length of the vocal tract impacts the vowels you are making with your voice, as can be seen in the following image:



sound accompaniment to image: <https://clyp.it/lm42sbod>

see how there are things changing as the sound changes (if you're interested in the program you can find it at <http://friture.org/> or alternatively on the microsoft store) despite there being no change in the pitch. Resonance is also a largely important factor in the perception of the gender of your voice, alongside the stuff going on with the vocal folds. In people whose vocal tracts haven't been affected by any meaningful amount of testosterone there is less volume and length to the vocal tract, which means that the frequencies of their formants would be higher than that of someone with a larger vocal tract.

What is a formant? Well that's a bit confusing but, let's separate the voice down with the power source filter model, in the voice the power comes from air flow, when we push air past our vocal folds and we bring our vocal folds together we produce a pitch, this is the source, this is where the sound originates from and then we have the filter, the filter is the vocal tract, its shape. Together these things produce the output in the form of our voices. Resonance is a quality of the vocal tract, you have lots of them actually, they are often simplified as corresponding to distinct chambers of the vocal tract, with the first resonance corresponding to the larynx and pharynx, the second resonance to the oral cavity, and the third to the space between the tongue and the ends of the lips. There are further resonances but they aren't as neat and tidy as these three, which are the most relevant to modifying vocal gender perception anyway.

Maybe some analogies might help? But idk try reading through the italic stuff and see if it helps.

*The output sound and formants may be easiest to think of through the metaphor of a shadow puppet show e.g. <https://www.youtube.com/watch?v=iCmFWJjc4RA> I want you to imagine*

*that this is a special puppet show, one where everywhere that the puppets aren't is shrouded in a mist which blocks a bit of the the light and that where the puppets allow more of the light through than their surroundings, when we look at the back wall these brighter bits are representative of the formants, while, the resonances are the puppets themselves and they help to maintain the light(sound) while the other light produced by the lamp(vocal folds) was dampened slightly before reaching the back wall.*

*Suggestion from sprin to just take the excerpt from Alison Behrman's "speech and voice science" book*

*"The source filter theory tells us that the vocal tract selectively resonates, or filters, a subset of harmonics of the glottal volume velocity for radiating out past the lips. When we consider formants and speak of their location, we really are referring to two specific characteristics of the formant, its center frequency and its bandwidth. (For our present purposes, we shall not address formant amplitude in this discussion.) Let us return for a moment to our analogy of the filters we use in the kitchen. A coffee filter is made of porous material so that the water can escape through tiny holes in the paper, whereas the coffee grounds, too large for the holes, remain trapped in the filter. We do not need to use porous paper to strain the water out of a pot of spaghetti, however. It would take too long to drain the water. Our pasta would surely become cold! The pasta is so much larger than the individual coffee grounds, it is more efficient to use a filter with much larger holes, a plastic or wire mesh strainer. The difference between the two common kitchen filters can be described by the size of the particles allowed to pass. An acoustic filter acts similarly, in that it selectively passes certain frequency components of a complex wave. Rather than simply passing or blocking frequencies, like the kitchen strainers, it passes certain frequencies more fully, or more effectively, than other frequencies. Said another way, certain frequencies will be attenuated (decreased in amplitude) to a relatively lesser degree than other frequencies. Less attenuation means more of the energy of the selected frequency component is allowed to be transmitted."*

So now that we've talked about the differences between the vocal tracts of the average AMAB and AFAB vocal tract we can start to talk about how these things contribute to vocal gender perception and how we can alter our speech in order to affect the way that others perceive them. Most of the way gender is perceived is as a result of glottal behaviours (things we do at the level of the vocal folds) and resonance behaviours (things that happen regarding the shape of the vocal tract), however, there there is other stuff that also affects vocal gender perception, things that are more socially specific than resonance and glottal behaviours, things like word choice or cadence. In the interests of universality I won't touch on these so much as other things.

So we kinda noticed that we can mostly split things into resonance behaviours and glottal ones, but it's important to note that these can be further broken up into smaller subsections, like with resonance you have the 1st, 2nd, and 3rd formants, which can to some extent can be modified separately, where you'll find that often butch lesbians will have a lower 2nd

formant than the average AFAB and that gay guys might have a higher 2nd formant than the average testosterone exposed AMAB, this is likely because the 2nd formant roughly correlates with mouth space and mouth space is easier and more more intuitive to change than something like throat space (assuming that its a subconscious effort to slightly masculinise or feminise the voice), the point being that different variables work in tandem and one variable won't necessarily make or break your voice

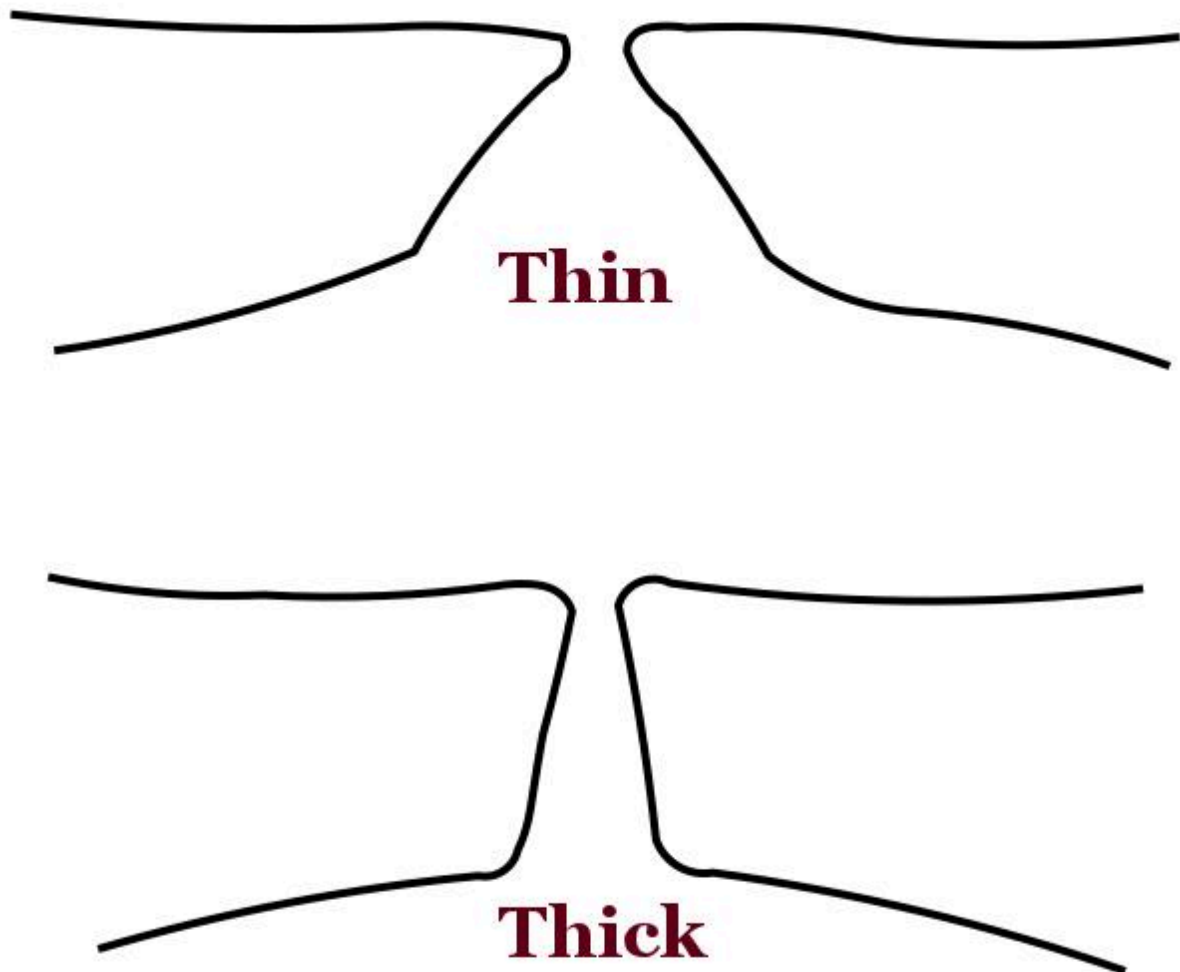
So, how do we go about achieving our vocal gender goals? Well generally speaking we kinda have two paths, whether we are looking to masculinise or feminise, this is in effect trying to work towards producing a sound that is more representative of what an average AFAB or AMAB would produce, ideally we would suggest that you work on everything so you can do it all, and can therefore pick and choose the parts you like and dial them back to a place you feel comfy with them, however, understandably not everyone feels comfortable doing this.

So what do we want to do:

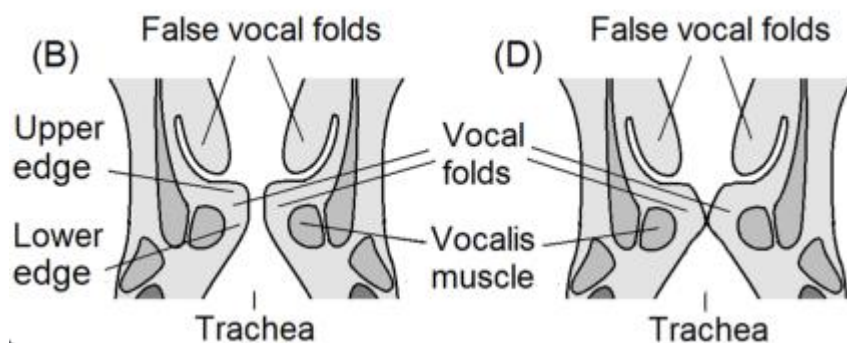
For trans fem people our general goals can be seen as:

Shrink the space within our vocal tracts and reduce the length of our vocal tracts (from our vocal folds to our lips)

Use a thinner vocal fold configuration



*think of this as a cross section cut of the vocal folds*



We ought to make sure that we have the false vocal folds retracted when we speak (example of them being used to the fullest extent <https://clyp.it/viroglwe>). We can sometimes hear them being used in the voices of old people, as they use them to bolster their speaking voice, and we also use them when we whisper, for this reason if you do any of the whisper variant exercises e.g. whisper siren, big dog small dog etc. I would recommend checking out Zheana's [video](#) on the

subject. [CLEAN UP THE VOICE & AVOID STRAIN | False Vocal Fold Control | 8 Exercises, Document, and Lecture](#)

For transmasculine people our general goals can be seen as, in priority order, work on lowering pitch, adducting the vocal folds more (push them together) and making them as thick as possible, creating more space in our vocal tracts and making them longer, and small stylistic things. Unfortunately there is less stuff on transmasculine voice training and for transmasculine voice training it's extra important to have good vocal hygiene as the behaviours used to masculinise can be more taxing on the vocal folds and cause swelling.

## Vocal Hygiene

Stay hydrated!!! Please, please, drinking water will first have an effect after 20 minutes but will take 4hrs for the vocal folds to become hydrated. If we aren't hydrated when we do voice work it can fatigue the voice much faster and lead to swelling.

Some daily exercises (VFEs) to help support vocal function.

1. Slide on SOVTE from lowest to highest
2. Slide on SOVTE from highest to lowest
3. Sustain a pitch softly for as long as you can. E3 - F#3 - G#3 - A#3
4. Sustain a pitch medium loud for as long as you can. E3 - F#3 - G#3 - A#3

(what are sovtes?) Semi-Occluded-Vocal-Tract-Exercises.

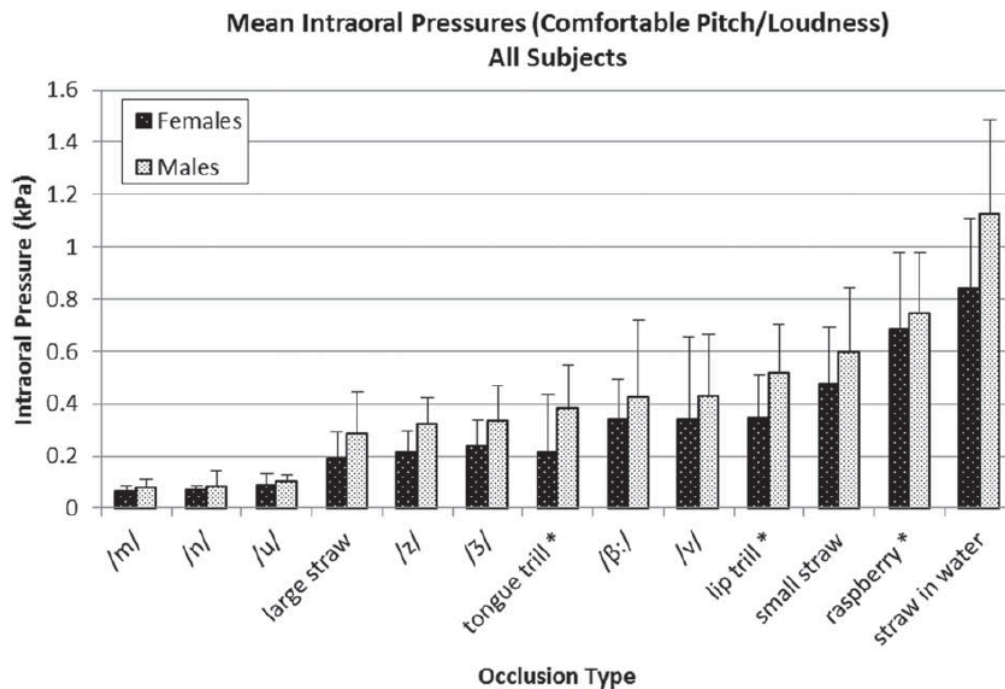


Figure 2. Mean intraoral pressure for all subjects (\*indicates subjects had difficulty producing the semi-occlusion).

On this chart you see a number things written at the bottom like /m/, /n/, large straw, etc, these are methods we can use to to create a sort of cushion of air inside the vocal tract after the vocal folds, this gives the vocal folds a slightly easier time making sounds and makes making sounds less taxing for them, examples of sovtes would be things like humming or the <https://youtu.be/GKJ2fPnaY-E?t=144> lip trills like the person is doing at this time in the youtube video (if you press in where your dimples would be it might make it easier) , if you want to check out some others you can use this [Interactive IPA Chart](#). Things like humming, or other things towards the left of the chart are good if you want to be extra light, say if you are taking it extra easy and giving your voice time to heal, otherwise things like lip trills or using a straw are good for while doing the VFEs above.

It's important to note that, if you are too fatigued, doing more straight away wont do any good (even sovtes).

When practicing keep practice short, ideally <10m, especially for trans masc and voiceless exercises.

<https://youtu.be/zit6l7EPMto>

## Trans Fem voice training

Hey everyone so quickly before we start I'm going to emphasise that for the vast majority of exercises simply doing them a lot won't change anything, it's about learning the movements

and having good form, if you feel like you're not getting anywhere with an exercise try going away and coming back a bit later.

## Trans fem intro

### Trans Fem introduction

So you've now read through the generalised information and that means we can move onto the actual meat of it, the exercises you can use to help explore and translate that into a voice you feel more comfortable using. For trans-feminine voice the two most influential factors are your 1st resonance (and vocal tract length) and your vocal fold thinness, followed by other things like pitch, 2nd resonance, false vocal fold retraction, twang, and added bonus things like feminising coughs etc.

We're gonna cover resonance first here but focusing on vocal fold thinness first is also a valid strategy so you could always look at that first and loop back. Please note that you can use things like white noise generators instead of whispering (preferably brown noise), and those should show up in a spectrogram and change sounds too, it's just that when you whisper you are engaging your false vocal folds, and in a polished voice we don't want them engaged, so if you do use whispers (or generally if your interested) check Z's video on the subject: <https://youtu.be/xdsaPJdU24s>

When we focus on our resonance for trans-fem stuff, what we're aiming to do is increase the frequency of our first formant, by shrinking our throat space and also decreasing total vocal tract length. The first and most influential thing we can do to try to do to raise our F1 values is raising the larynx as this not only reduces throat volume but also vocal tract length as well. You may have come across exercises aiming to do this before, but we would like to caution you that any exercises that involve swallowing are likely to make the process much more difficult than they need to be.

If you want to see stuff in video format then Z is a great shout!!

recommended channel <https://www.youtube.com/watch?v=iTViDd0QPEI>

Recommended viewing order

<https://youtu.be/gZWQ7MICbDY>

<https://youtu.be/1PNnBRBfOVY>

<https://youtu.be/BW8X2nXexQs>

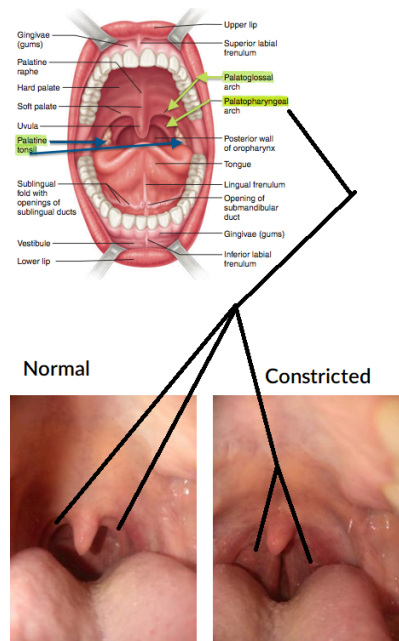
<https://youtu.be/AnUD0gfLevo>

<https://youtu.be/ynFqjE2AEGk>

## Trans fem resonance exercises

I'd also like to emphasise that the aim of these exercises is not to be loud, when you're doing these resonance exercises you really want to be as quiet as you possibly can, and if you want to take it a step further using an external sound source is optimal like a brown noise generator on your phone etc

So this one won't get its own thing but, raising the back of the tongue is an alternative you can try to the purely larynx height exercises, some voice teachers prefer this one. I.e. use a mirror or smth similar to see what it looks like to raise the back of the tongue, and try to do that (this will raise the larynx and therefore shorten vocal tract length, which is what we want to do in feminisation, additionally we can then move onto opc following a similar style of using a mirror, in this image it's taken to an extreme (courtesy of sprin) and we can try to bring in these arches in order to further raise f1 and shrink vocal tract space, this is just an alternate way to try doing things, but if you feel comfy feel free to try to use this instead if u



wanna.

Hey I also didn't really get into it on the individual posts, but, it's probably worth for the exercises that use breath alone, to also practice doing them silently. I.e. learn to do the movement, and have the sound there, but when you can take the sound away (keep the air flow but remove the hissing sound) because this is false fold engagement and this isn't something we want to carry forward into voice :3

Big Dog Small Dog - an okay exploration, probably don't want to use more than once, see if u can jump to vowel scaledowns after dipping in your toes (preferably working on vocal weight first)

The first exercise to try to feel some control involves whispering, or more specifically is voiceless and involves the false vocal folds rather than the true vocal folds. And is colloquially known as the Big Dog Small Dog exercise. Here's the audio explanation of the exercise <https://clyp.it/ffrx1yv>

The first step of the exercise is simply trying to imitate the sound of a big dog panting, and then think about what a smaller dog panting would sound like and try to move from the big dog pant towards something closer to small dog panting, what you should mostly notice is a change in the height of your larynx (marked by the movement of your laryngeal prominence) and you should also notice that the sound seems higher pitched, for the sake of simplicity though we are going to call this "brighter" as to not confuse it with when we are using our vocal folds. (where the big dog pant is a darker sound)

If you look at a spectrogram while doing the exercise you should see something like [this](#) (the first formant is marked in green and you should see it move from low to high as you reduce the space in your throat)

## Whisper Siren

The second exercise is very similar to the first one, but instead of being broken up into discrete chunks this exercise involves just one slide from dark to bright or big dog to small dog, and is known as the whisper siren. Both are worth giving a go to see which you prefer.

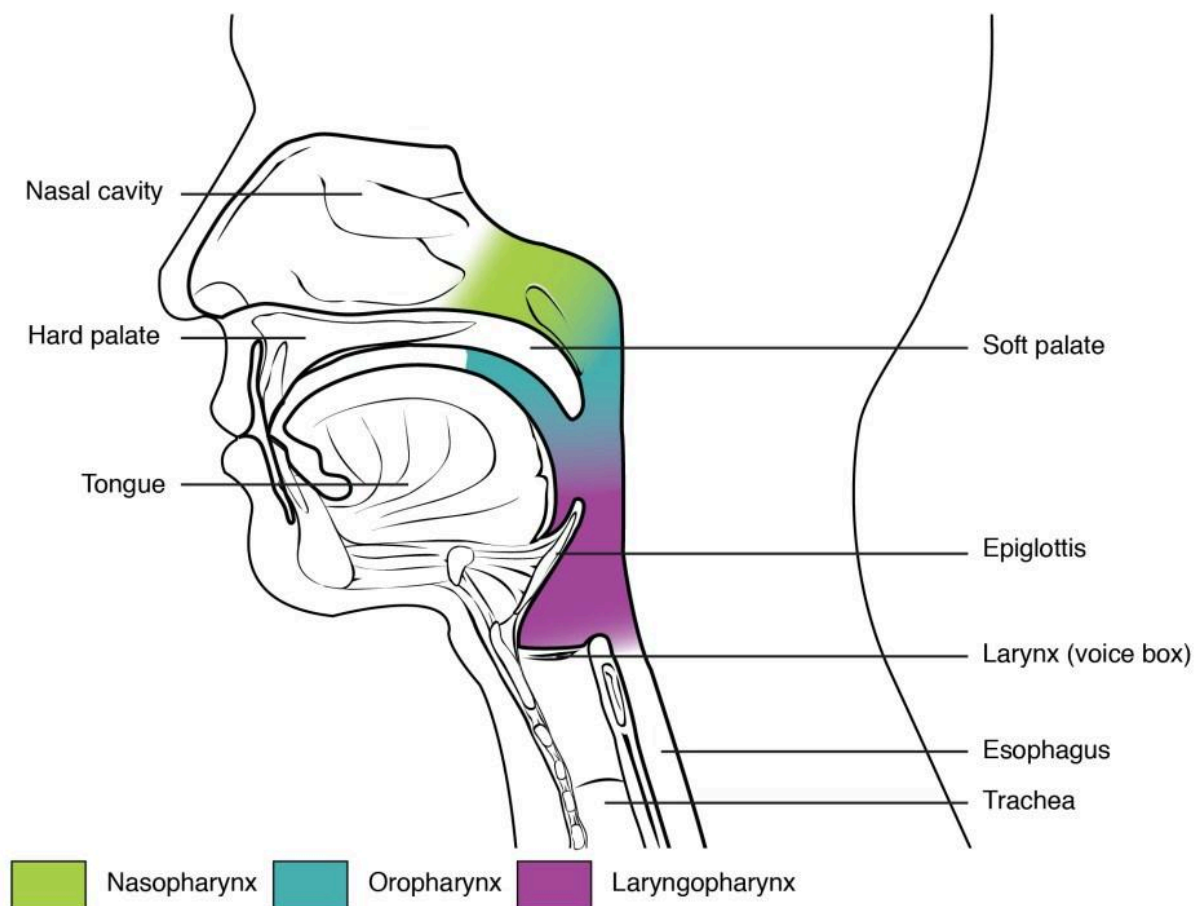
The whisper siren as seen in Friture

<https://cdn.discordapp.com/attachments/632788463737110545/742543997247029318/unknown.png> <https://clyp.it/4mkxq2bw>

## Vampire Siren

**So I would be careful with this one, that you are adding opc rather than constricting the false vocal folds tis just something to be mindful of :3 (if you feel like you are getting fvf constriction it's probably worth checking out the video on it on the Trans voice lessons youtube channel :3**

The third exercise is a progression to the previous exercise and is known as the the vampire siren,(listen to oral demonstration here <https://clyp.it/vfmh1zsp> ) it's very similar to the previous exercise but it adds on a hiss at the end, this involves further constricting throat space, if you consult the diagram below,

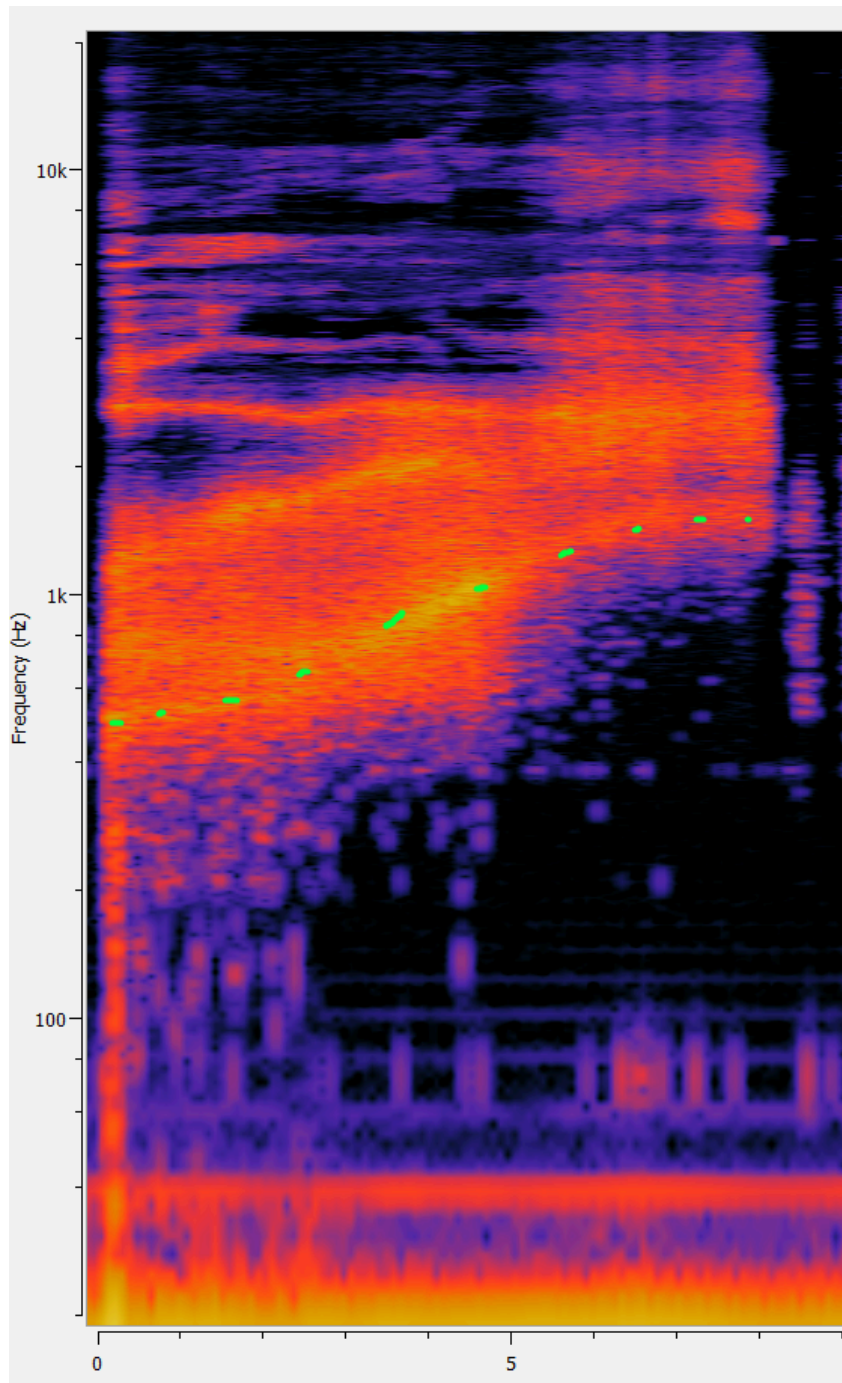


you'll be able to see that the oropharynx is marked in blue. Constricting this space reduces the space in the throat and has a large impact of the value of the first formant, during my previous demonstration of the whisper siren my F1 value peaked at around 1050 Hz, however, with the addition of the vampire hiss, the oropharyngeal constriction, my F1 value peaked at around 1550 Hz (see spectrogram) which is the difference between an androgynous but still feminine voice and a heavily feminine one when paired with other aspects of the voice. I will talk about OPC more later but for now I will move onto talking about adding voice, because while unvoiced exercises are a useful tool, they are in the end only a tool and not a finished product.

## Adding voice

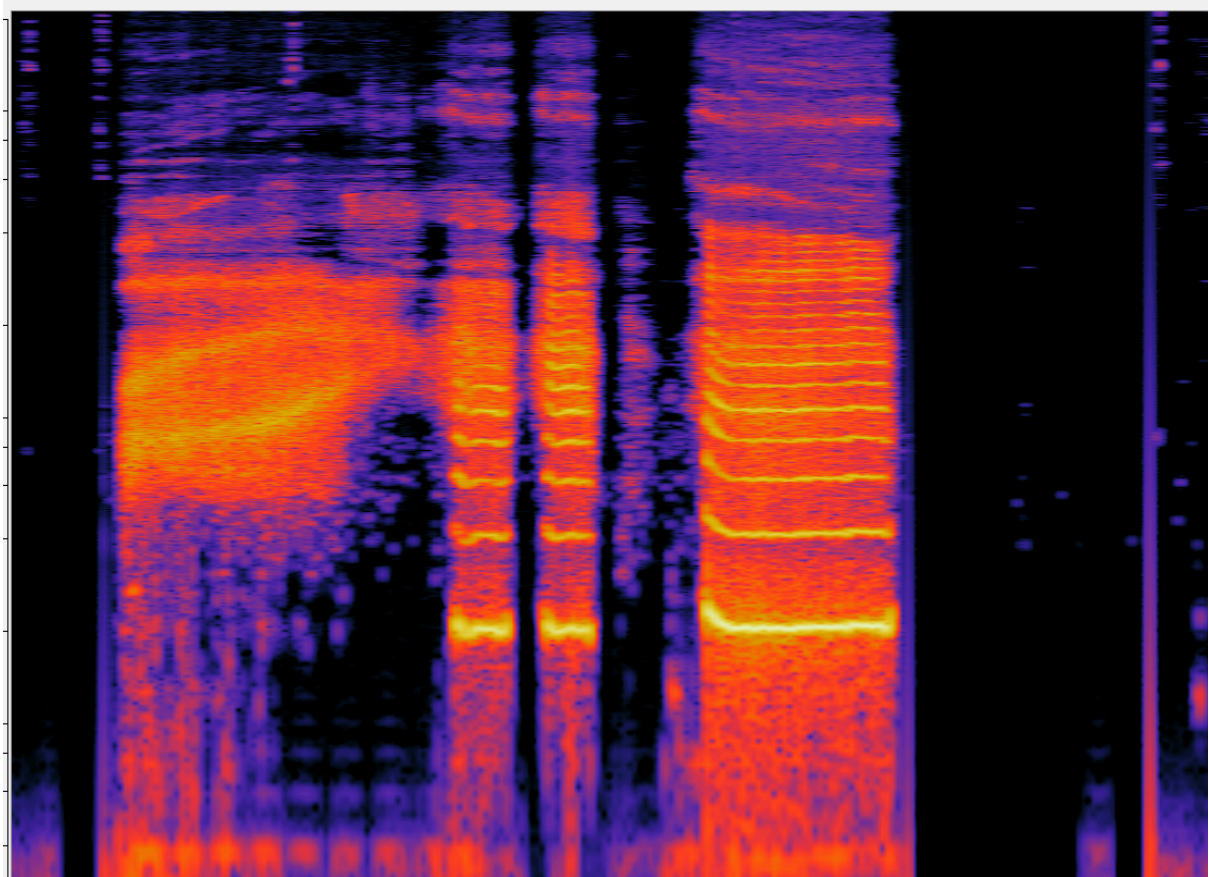
So at the end of the previous exercise, we mentioned that the next step would be to add voice to our resonance practice. This is an important step for many reasons. Obviously, it helps us because we use voice when we speak, and this helps us to acclimatise. Additionally, it helps to figure out what else is going on with your voice. In the interest of keeping this concise, I will only demonstrate adding voice to the vampire siren as I think it is the best one to use in this situation (though using the other ones is okay too). To start off the exercise, we will do a vampire siren, but taking special care to make sure we are doing it on the æ vowel (the a sound in cat). This vowel has the highest F1 frequency out of all of the

vowels in English, which makes it a good vowel with which to practice feminisation, as this is



basically the max. Things to stress from this exercise: Keep the a vowel from the bottom to the top, go straight into phonation when you hit the top (like with voice rather than just the whisper), try to maintain it for at least a few seconds, just so that you get a bit more comfortable with that posture, and try to make sure you aren't dropping your f1. A little drop is normal and to be expected, but if you're completely losing it then reset and try again. Using a spectrogram helps with doing this. It looks as though I may have done this in my

recording but my voice is too fried rn to fix it 😞 ) <https://clyp.it/3k3pltvo>



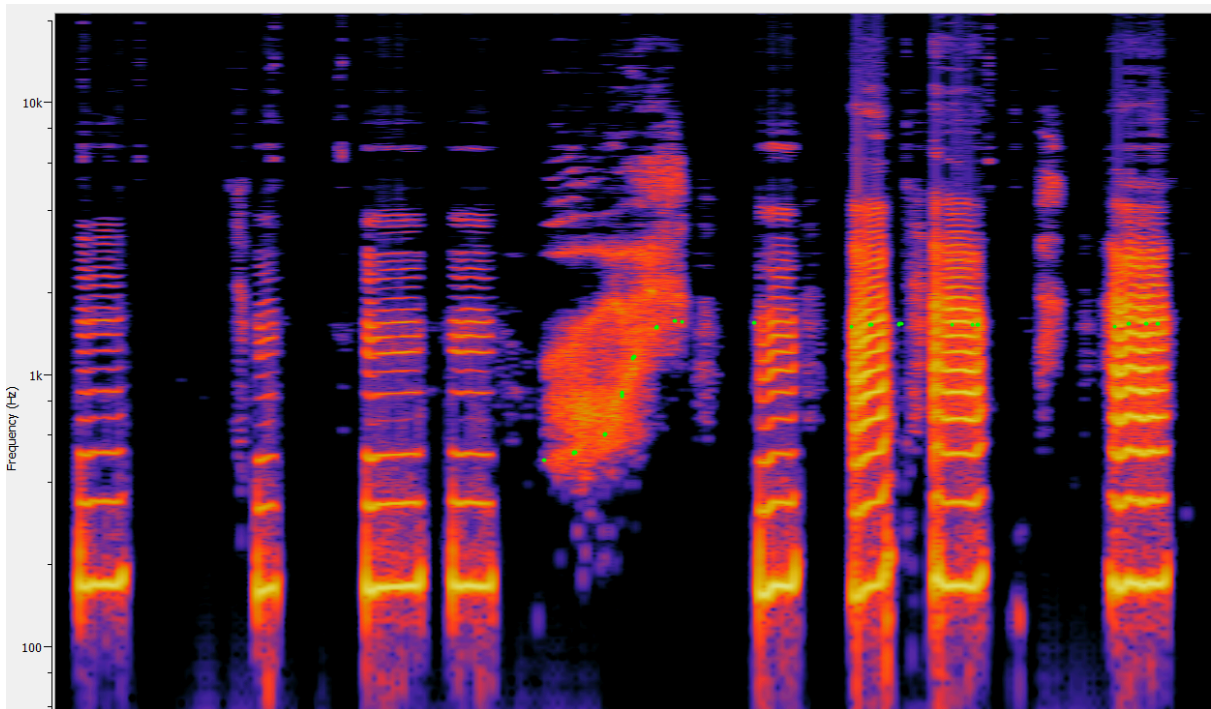
## Troubleshooting

Many people have trouble with this one at first and that's completely fair, I know I did. It's fairly typical to find ourselves propelled to a stratospheric pitch when we first do it so here's a couple of similar exercises to work on that. Typically for fem voice work we probably want to keep our pitch for our speaking voice somewhere between 140hz and 250hz with exceptions for inflections.

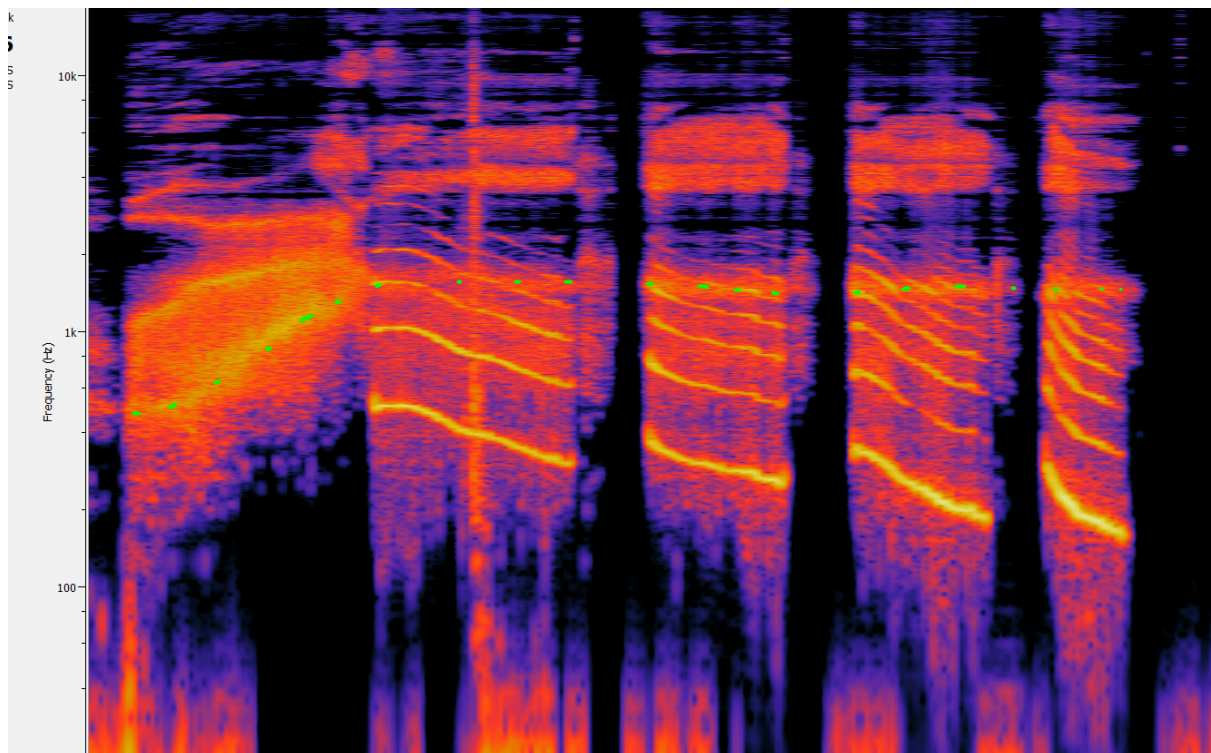
Note these exercises won't be necessary for everyone but if you find that your pitch is higher than 250hz you probably want to give these a try.

So the first exercise involves finding a suitable pitch and then getting accustomed to that pitch, then trying to do the exercise but jump to that pitch. It should sound something like this <https://clyp.it/olc14fjn>

and look something like this



The second exercise has a similar purpose, but is done differently, in this exercise you can allow yourself initially to overshoot the pitch, but what we will do is drag it down while keeping the same posture and therefore resonance, it should sound something like this <https://clyp.it/xwyrzew1> and look something like this.

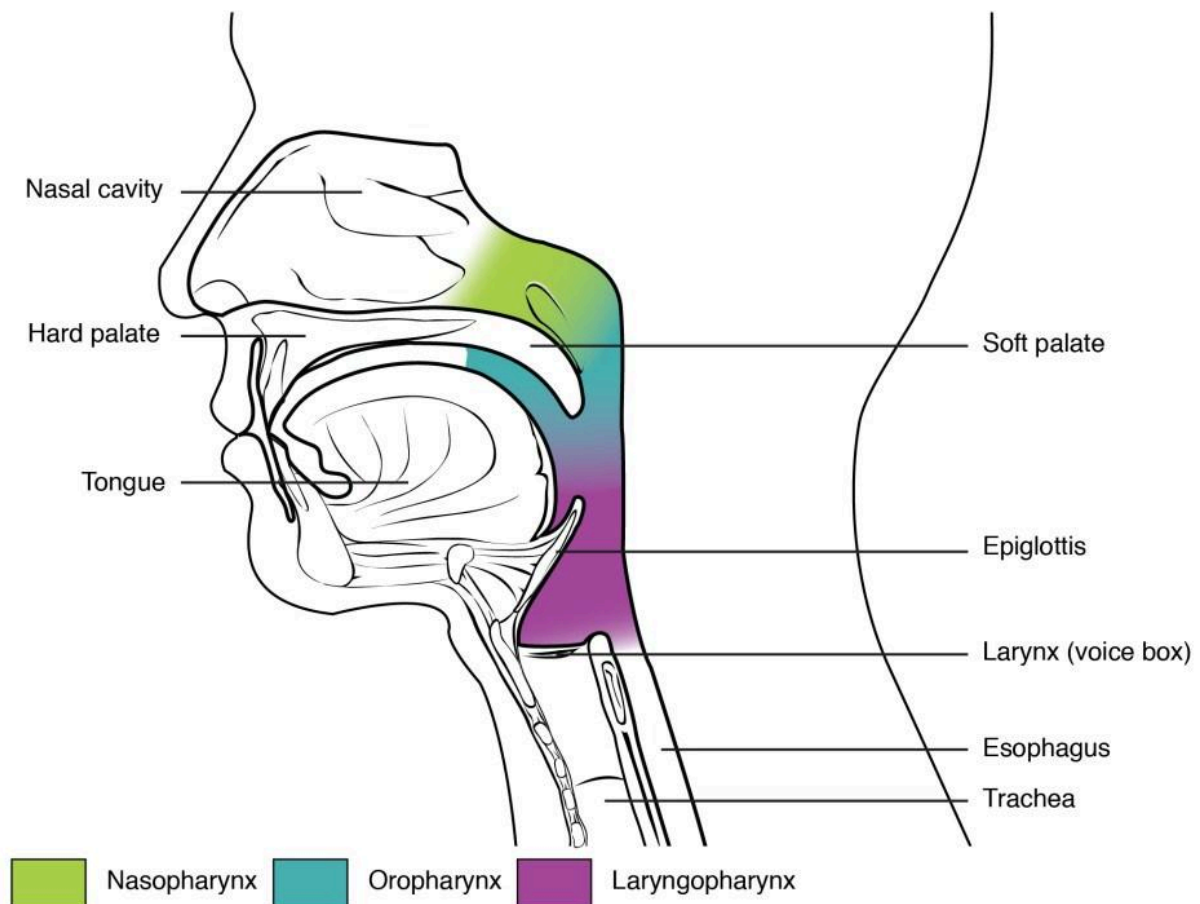


As you can see in the image the highlighted area in the upper harmonics didn't drift down along with the pitch, and this is what you're aiming to do as well (using a spectrogram helps)

(also doesn't matter if you take breaks for breaths or do it in one go) as long as that line stays level.)

## Aspirated P OPC exercise

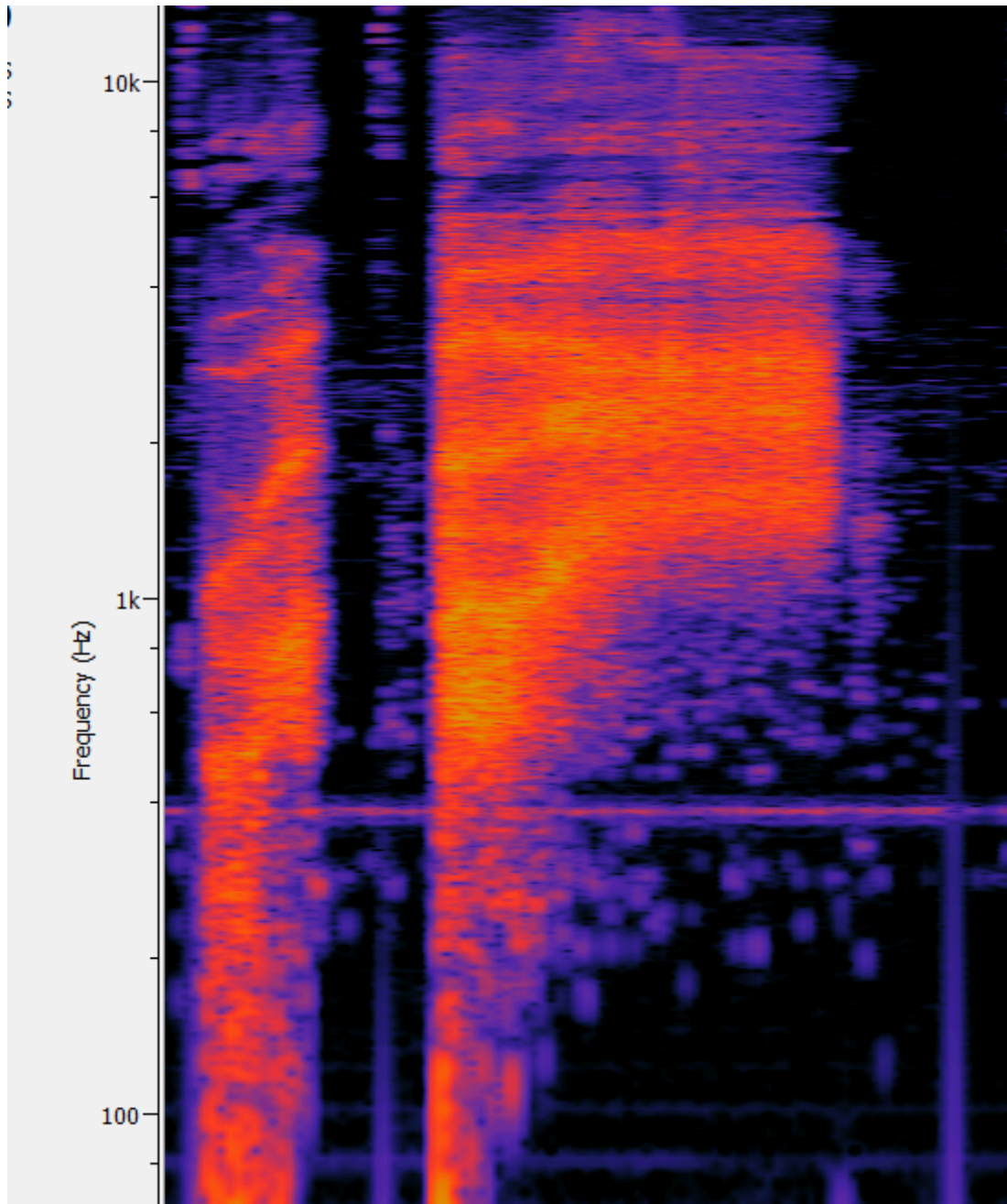
The next few exercises we're gonna focus on are related to the oropharynx, (which we can see in blue on this diagram:



) We're looking to further constrict that to gain a greater boost to our F1 values. We did touch on it with the vampire siren exercise, but here's a few more to try and lock it down.

The first one we're gonna think about is an aspirated p (basically we wanna do a whisper siren, then make a p sound, but we hold it and then try to make it brighter (basically what we did with the whisper siren)). When we start off with a high larynx and then make a p sound and try to make it brighter, there are very few things that the body can do to try and make it higher. One of those is constrict the oropharyngeal area, so we're basically attempting to

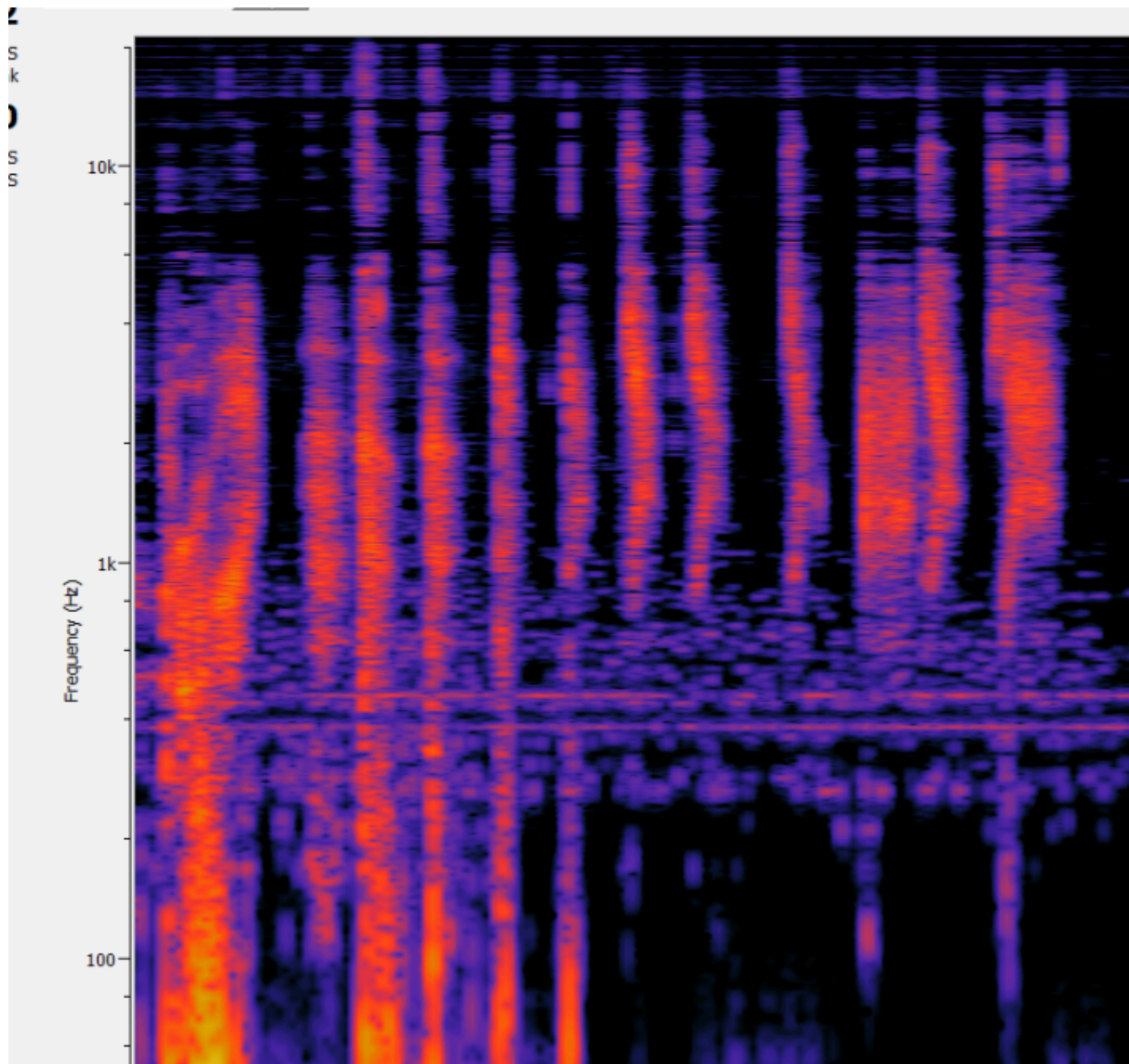
trick it into doing what we want. Sound demo: <https://clyp.it/azffztp4> and spectrogram picture



## K-pop exercise

The next exercise to try involves the K or G sounds (they can be used interchangeably) and is known as the k-pop exercise. This should help us work on figuring out OPC at the same time as what we're doing with our soft palate. (if you refer to the picture above, it points to where the soft palate is.) So what we wanna do is: First, do a whisper siren, big dog, small dog, etc. Then, once we've shrunk the space, we want to make the sounds Ko, Kuh, Ke, Ka, Kyah and try to make the sound as "bright" as we possibly can. It should sound something

like this <https://clyp.it/zg0nvhp4> (you can play around with going between a and the kyah sound if you feel like it, just to see if it has made any difference to your F1 values) and may look something like this

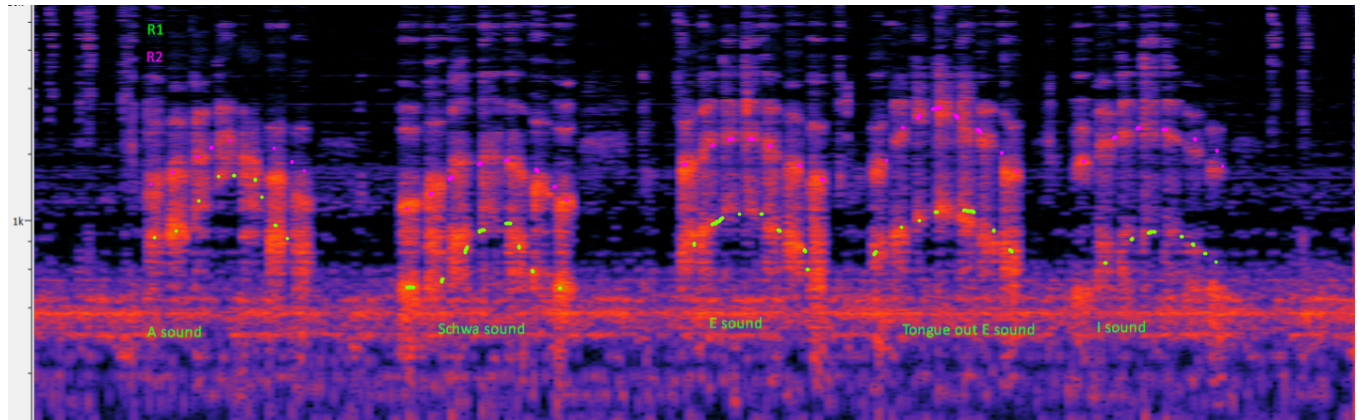


## Vowel Scaledowns

This clyp goes into it more than I do here, <https://clyp.it/n0mxilyr> but this exercise essentially entails altering the gender perception of the vowels you are making. It's good to play in all directions with this so that you can get a more intuitive feeling of changing your resonance

the first logical one to start playing with is probably an uh sound or schwa, basically the sound we by default make when we open our mouth, we basically want to start with a dark masc uh and trend it into a bright fem uh, and then back again, and just play around with that. The next choice might be a tongue out E etc. Following sound clip:

<https://clyp.it/gfybepv1> goes through a number of vowels as demonstrations and there is a spectrogram image below detailing this: ( A ish sound, schwa/Uh sound, E sound, tongue out E sound, and an i sound):

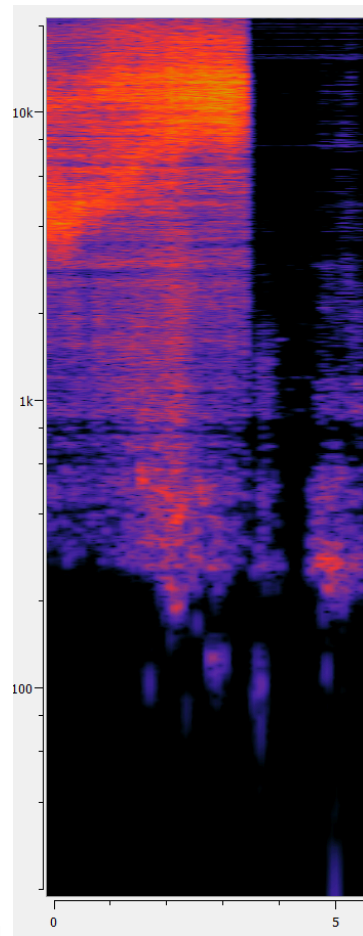


## Quick bit on R2/F2 Exercises

The next exercise we're going to be looking at involves mouth space, our second resonance and our second formant values. As was mentioned earlier, resonance has a large effect on the vowels that we are creating, and the ratios between our pitch, our F1 and F2 values are highly important for vowel clarity. For feminisation we tend to work on our first resonance first, this can as a result make our voices sound a little less clear, in the same way that a kid kinda slurs words at times.

This exercise revolves around the S sound, when we make the S sound we can either make it brighter or darker. For this exercise we want to try and make the S sound as bright as we can, once we have done this we want to apply this bright S to the words Sun Salt Sea Soap, these words offer an array of vowels to experiment with, while using the bright S sound, after this we can try to keep our mouth posture similar to how we did with the bright S and then try saying other words without an S sound in them.

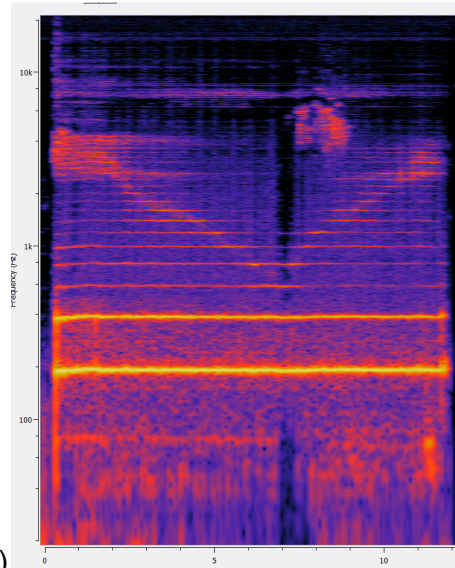
<https://clyp.it/t3lhcmwf> (there's not really a ton to be gained by looking at this exercise in a spectrogram however, the next image shows what a dark s looks like sliding up to a bright S



in a spectrogram

The main other exercise for F2 isn't as straightforward in terms of end result, but it's a good thing to practice over time. When looking at the vowels E and O we can see that the F1 values remain similar between them, but that the F2 values change drastically, this means that sliding between them is a good way to practice modifying our mouth space pretty much in a vacuum. It's quite a simple exercise, so feel free to give it a try. The following audio clip shows a vowel shift from E to O to E again <https://clyp.it/j2rfiebK>, and this is what it looks like

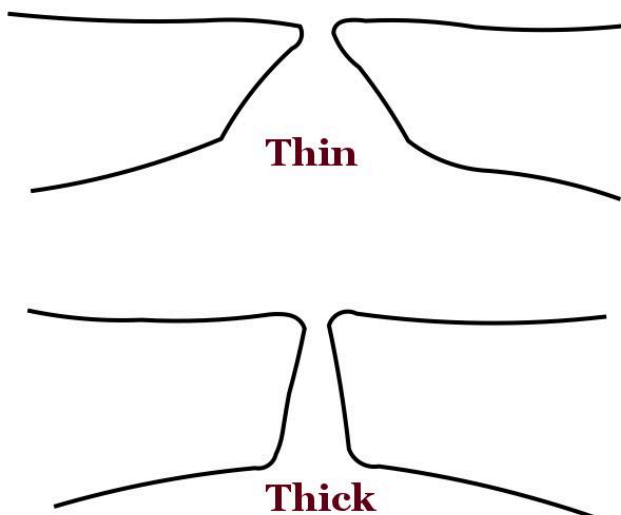
in a spectrogram (this exercise is more for control than anything so there is no specific



takeaway other than getting used to changing r2 is useful)

## Vocal Fold Thickness/ Open-Quotient exercises

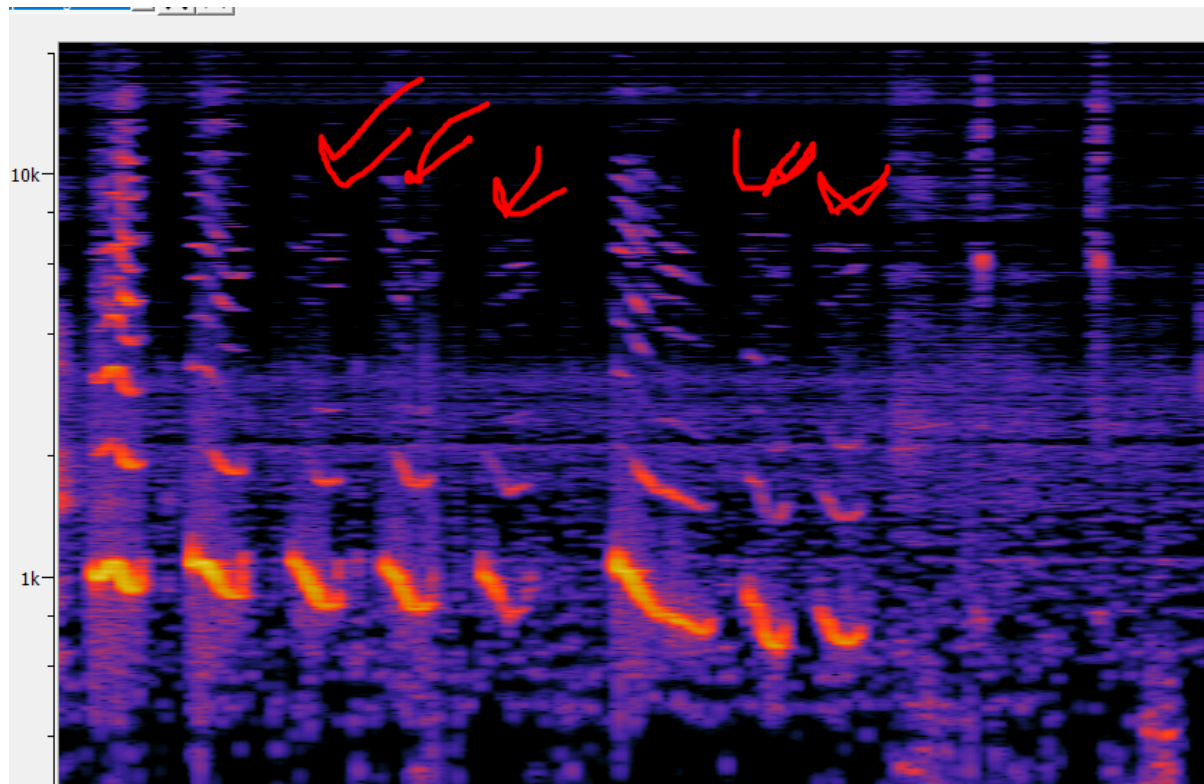
Vocal fold thinning is pretty much in line with resonance in terms of importance when trying to feminise our voices, so we're gonna give you a few exploratory exercises to give this a go.



This image is a representation of the vocal folds, and essentially shows what we mean when we say thinning the vocal folds.

## Dog whimper exercise

The first exercise we're gonna look at for vocal fold thinning involves making a dog whimper sound, this sound requires you to thin the vocal folds to produce it. It should also leave a residual effect for a short time on your voice. If you look at this spectrogram image



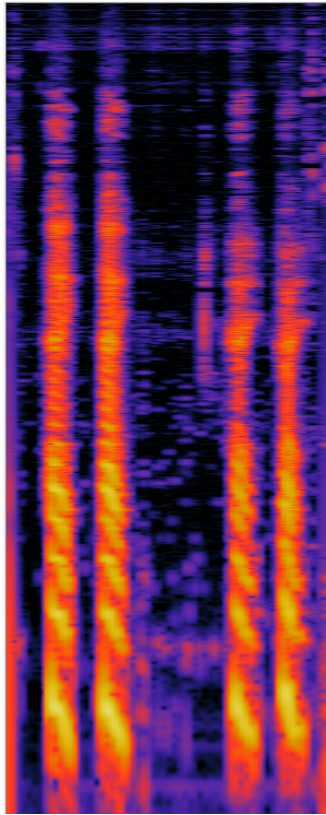
you should notice that many of the whimpers have very little energy in the higher harmonics and that with the exception of the three without arrows they were quieter in the following sound recording <https://clyp.it/ogx4muzr> too. What you want to do when you try to replicate this exercise is to copy the dog whimper sound where it gets lower pitched and whinier.

## Head tilt exercise

The next vocal fold thickness exercise is mostly about experimentation and involves tilting your chin up towards the ceiling and tucking your head in. So the important thing to note in this exercise is that when you tilt your chin up and stretch your neck out your vocal fold thickness will increase, and tucking your chin in towards your chest will make your vocal folds thinner. This is just an exploratory exercise and I would urge you to try to listen for the differences between when your chin is tilted up vs when it is tucked, and a further continuation to the exercise would be trying to maintain the softness of when your chin is tucked as you tilt your chin towards the ceiling.

The clip attached to this exercise shows me chin up towards the ceiling and saying hey twice, and then tucking my chin in and saying hey twice. You should notice that the first two

keys sound <https://clyp.it/sesqcb5q> a bit harsh and loud while the second two are softer and quieter, this is reflected in the spectrogram image linked below where the first two keys keep more power in the higher harmonics, while the second two have less shown through their

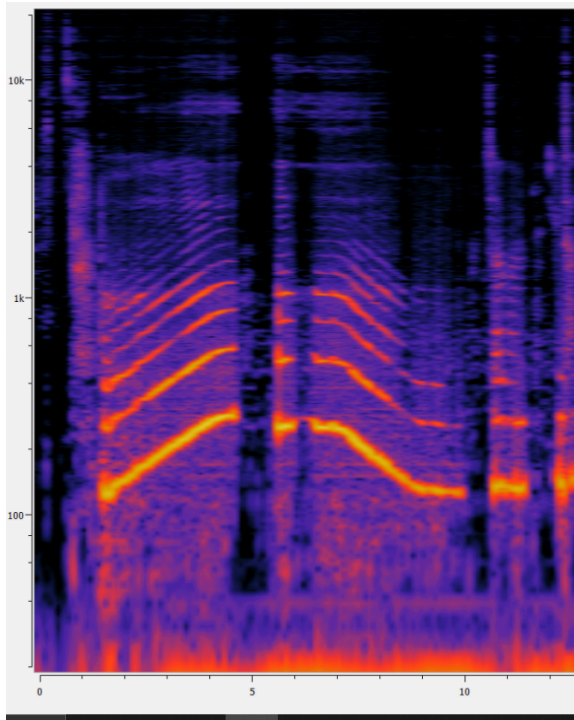


comparative dimness.

## Pitch slide

The next exercise is fairly simple also, what it involves is a pitch slide first up and then down, on the way down you want to make sure that you keep the softness, dragging the softness

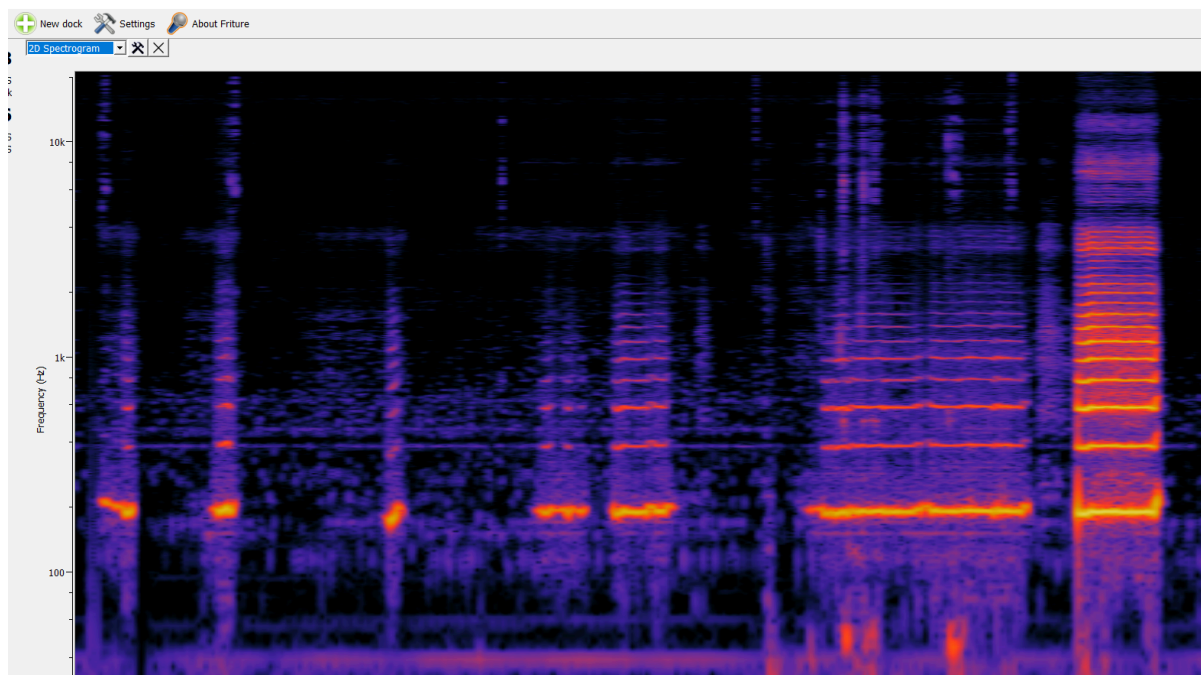
down with the pitch. Here's what it should sound and look like <https://clyp.it/fcvesk1>



it won't necessarily work for everyone but it's definitely one to try out to see if it works for you.

## Soft Onsets

The next exercise involves the idea of soft onsets, this is essentially where you try to make a sound as soft as you possibly can, you want to make a few soft quick bursts before like tackling the start of when you first start phonating (adding voice) and then when you think you've found a soft configuration try to hold onto it, this is another way of getting yourself to enter into a soft configuration. It should sound <https://clyp.it/muxmr44y> and look something like this.



In the spectrogram image you can see that I make five short bursts of noise, where I practice the onsets (the start of the noise) and then you see a sustained soft one, and then after that you see a harsher one which involves thicker folds.

(a variation of this is to have your lips closed to begin with when you do it, this may make it easier to get soft as it's a SOVTE, then when you've found a sustained soft sound you can open your mouth and try to keep that softness and transfer it over to speech)

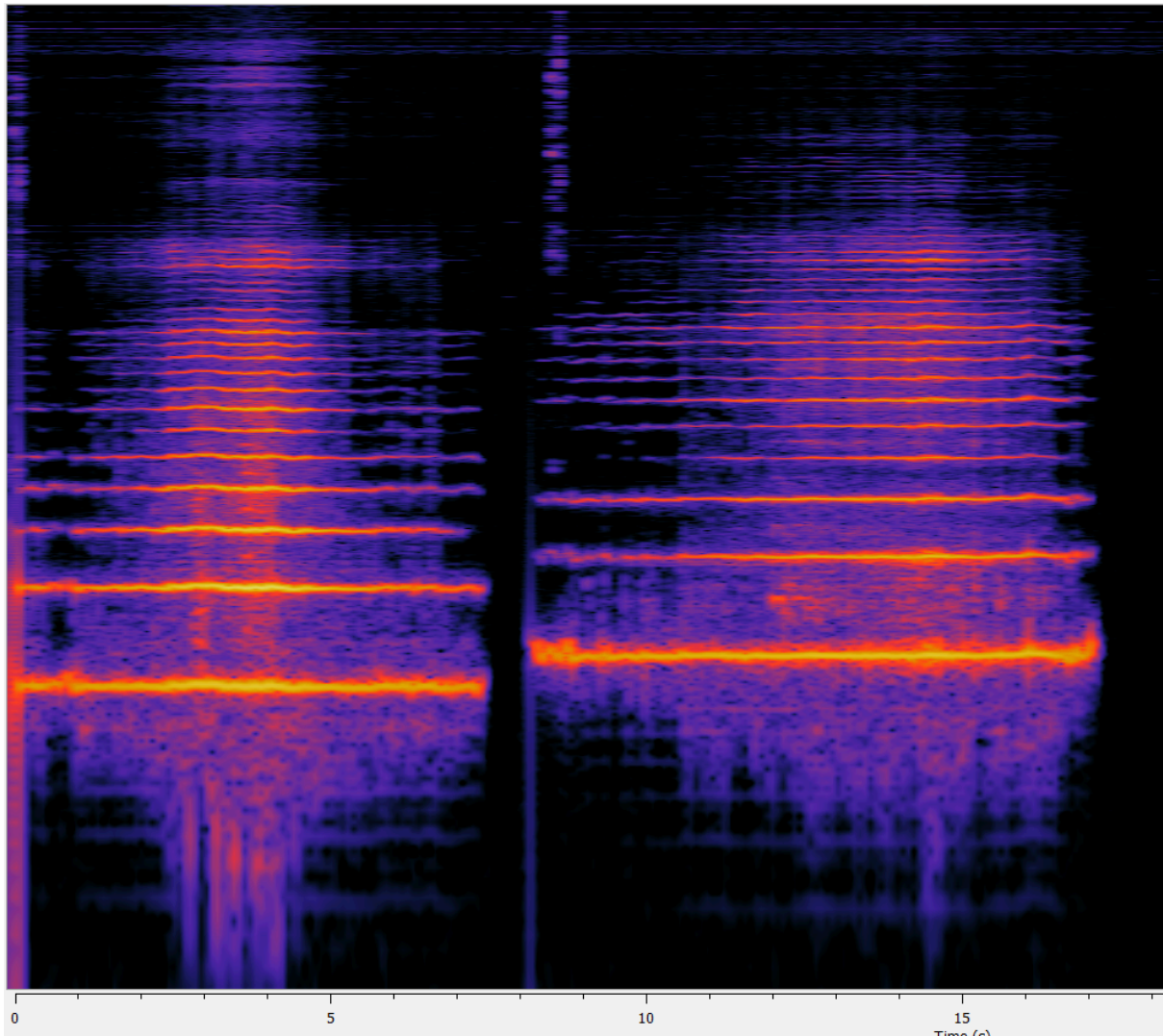
## Messa de voce (volume gradients)

So the next exercise is generally called "messa di voce", however, I'm just gonna call them volume gradients because that's basically what they are, what I want you to do in this exercise is keep pitch the same as much as possible and resonance the same as much as possible and go from the quietest to as loud as you feel comfy doing. I would also recommend trying different pitch and resonance combinations like going for a dark sound (big space in vocal tract) then trying a bright sound (constricted vocal tract), and trying this at different pitches in m1 (chest voice). This should hopefully help you to improve your control over vocal fold thickness a bit better as when you go from quiet to loud and back to quiet again you are balancing a ton of variables including fold thickness, adduction, and breath pressure, which makes sustaining a pitch while changing these variables reasonably difficult.

I may also try different pitches and resonance behaviours to try to get a better feel for thick vs thin vocal folds in different scenarios.

If you look in a spectrogram you when doing this exercise you should see something along the lines of this with it a flatter spectral slope in the middle (aka more energy in higher

harmonics, aka harsher louder sound, thicker vocal folds etc) (though you probably want to make it a more gradual change than I did :P) Voice clip: <https://clyp.it/z0kfp3mk> Spectrogram image:



## Trans Masc Voice training

The sad truth of voice training for trans masc folks is that while many people do achieve great results through voice training that it is a more laborious task than it is for trans fem people. For trans fem people it really is just a case of learning control while for trans masc folks there may be an aspect of working day by day on vocal fold behaviours and working to lower your pitch floor, as well as things like vocal fold thickness.

Voice masculinization rundown over soundcloud

<https://soundcloud.com/adi-phoenix-658511988/voice-masculinsation-rundown>

My main tips for making your voice deeper are first: try to do it in the morning just after you wake up if possible, as the swollen vocal folds from sleep ('morning voice') can be helpful, and you can use that feeling from the morning as a guide for where you're trying to go later in the day.

second: in terms of getting to that deeper voice try to relax into it, a good way to do this is yawn but as you do so drag your pitch downwards

(related to this, if you get down to a point and you feel like you can't go any further, I like to hum along to a song in this area and that way I can acclimatise to the area and get properly relaxed,

[https://open.spotify.com/track/0pEC10owcK34KgGYGddAqU?si=SJPdZB6gS1O7\\_lmMltBN\\_TQ](https://open.spotify.com/track/0pEC10owcK34KgGYGddAqU?si=SJPdZB6gS1O7_lmMltBN_TQ) I like this song for this purpose because it varies a lot in a small pitch range but doesn't get you to change your pitch too much <http://prntscr.com/ui6lmk> )

and third and finally: reminder to pay attention to vocal hygiene. Many transmasculine exercises can be very vocally fatiguing, so paying a bit more mind to vocal health is advised. [This PDF](#) provides some vocal function exercises, which are good for maintaining and improving general vocal health. Don't worry about the male/female part, you can do whichever you are comfortable with. Additionally check out [this video](#) and perform regular vocal swelling checks.

Though it does not work exactly the same, we can use the analogy of a guitar string, if you have two strings of the same length but one is thicker, then that one is going to be a lower pitch. Similarly the thickness of the vocal folds is related to pitch as well as spectral tilt, the

Whilst the only convenient way to increase length is to relax into it more, the other option we have is increase the thickness, to do this what we want to try to make the muscle grow(hypertrophy), so what we generally want to do is speak at a low a pitch as we can, for as much of the time as we can whilst also making it as loud/harsh as we can as this over time will likely lead to growth demo between the soft/quiet and loud/harsh:

<https://clyp.it/hab3ctmt>

okay so this is another trans masculine exercise thing, basically it's adduction gradients i.e. how close the vocal folds are together, having your vocal folds closer together makes them need more airflow to be pushed apart and as a result more of the vocal fold vibrates and so produces a thicker heavier sound, check out the clyp to get started <https://clyp.it/unq3tyzm>

Trans Masc resonance stuff

<https://clyp.it/mrg5mfim> sorry there isn't a proper post yet, however, this post essentially talks about how you can apply changes to your resonance to achieve your goals and goes into some exercises you can give a go at, so basically you can apply the following exercises backwards, big dog small dog, the whisper siren, and the R2/F2 exercises, so feel free to do that owo

The next exercise is called vowel scaledowns and it's described in the trans fem section so you can jump over there if you like. But here's a link to the clyp that talks about it <https://clyp.it/n0mxilyr> This clip slightly favours transfem stuff, talking about the E sound and practicing feminising with it, alongside other stuff, but the core of the exercise is still discussed. The idea is that vowels are essentially ratios between our formants, which means that we can scale up and down where that vowel sits from masc presentation to presentation and back again, and this exercise is basically to practice changing and manipulating resonance, hopefully to get a more intuitive feel for it.