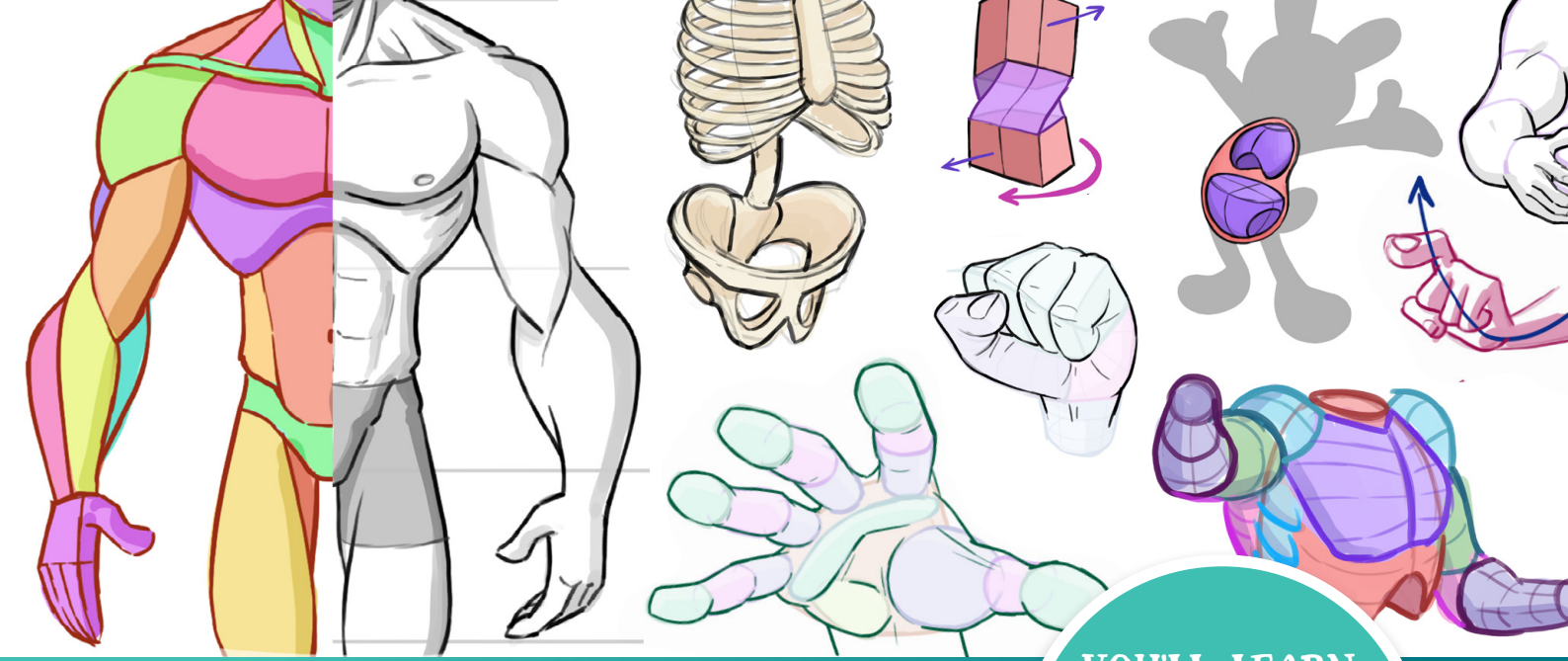

ANATOMY: HOW TO DRAW THE UPPER BODY

BY MITCH LEEUWE

YOU'LL LEARN HOW TO DRAW:

- THE TORSO
- THE ARMS
- THE HANDS

mitchleeuwe.nl

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ANATOMY: HOW TO DRAW THE UPPER BODY

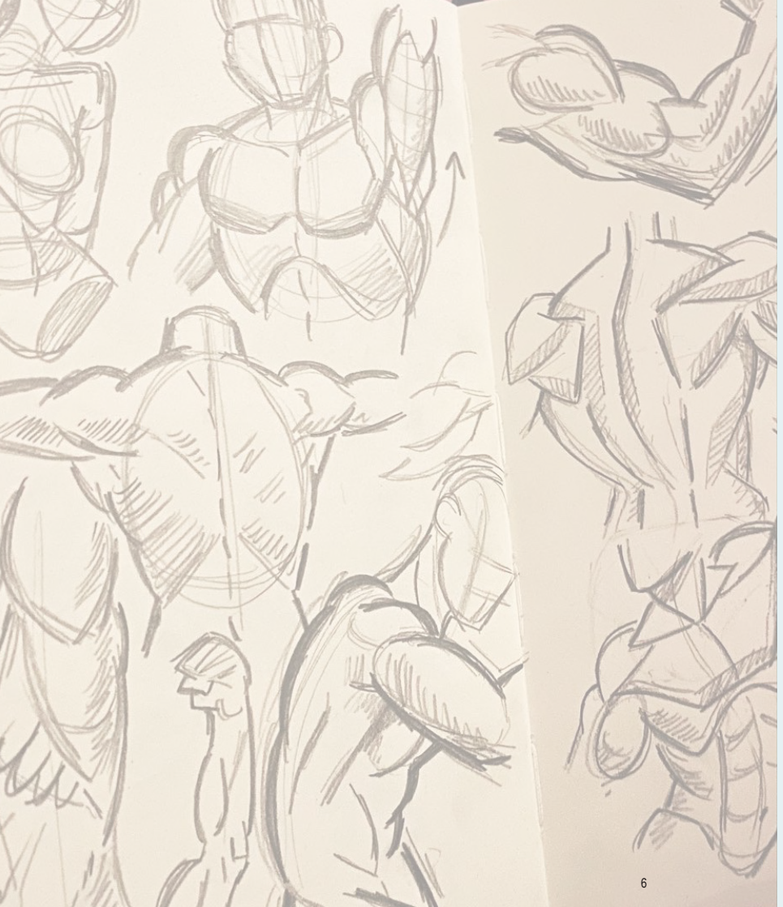
BY MITCH LEEUWE

HI THERE!

Let me introduce myself. I'm Mitch Leeuwe and am an illustrator from the Netherlands.Thank you for purchasing my book about anatomy. Back in the days when I wanted to learn about anatomy, I found it very overwhelming. So, my goal with this book is to make learning anatomy understandable and accessible for you.

I started out by trying to learn every muscle and bone and I really began to memorize all those different parts. But after a while I noticed I forgot a lot of their names and in the end, I always had to look it up for reference.

That's when I started to look for tutorials about anatomy for animation. I found examples where the anatomy was simplified and broken down in understandable formulas and shapes. This made it way more fun and easier to learn. So, I started making this book with the idea of putting everything together.



HOW TO USE THIS BOOK

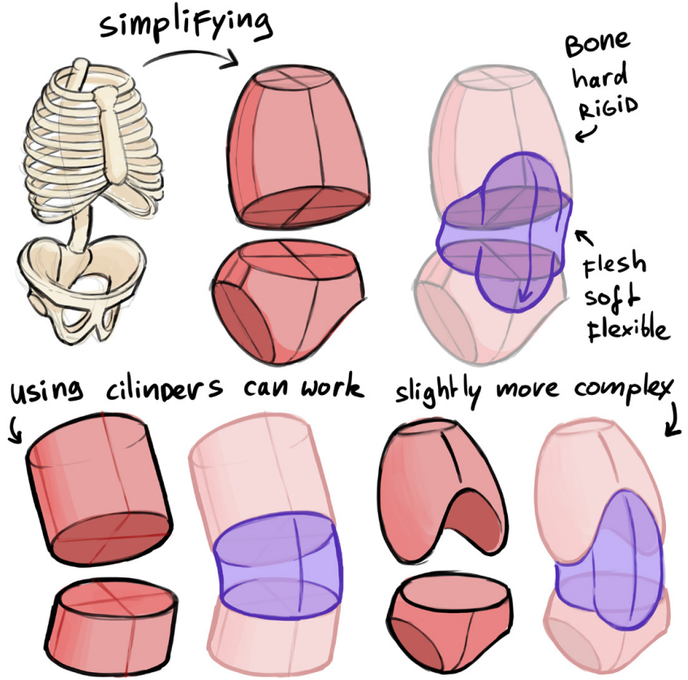
I mostly draw cartoon characters, which are not hyper realistic. And because of that I'm always focused on simple shapes first. But even if you want to draw realistic anatomy, I think this book can be very helpful. Because these simple shapes will form a solid foundation before adding all details and muscles on top.

You can use this book to learn from or use it for reference when you are drawing a difficult pose. If you are just starting out, the best way to learn is to take small steps. It's okay to start by copying the drawings in this book and try to examine all different body parts.

Once you get comfortable with copying these drawings, you could start looking for photos of people in which you can see the structure of their muscles. Like a photo from a boxer or a ballerina in a strong pose. Draw the characters first, then add muscles on top, try to see how the muscles work and where they are connected. It takes a lot of time to learn anatomy, so don't get discouraged if it takes a while to get the hang of it.

Be patient, try to have fun and enjoy the process. Start by doing thirty minutes every day, instead of doing a couple of hours in one go and get frustrated with it. Doing a bit every day will make a big difference after some period of time. When you have difficulty drawing shapes, start practicing drawing cubes, spheres and cylinders. When you can comfortably draw shapes on paper in 3D, you can basically draw anything. By mixing up those shapes you can build any object you want.

THE TORSO



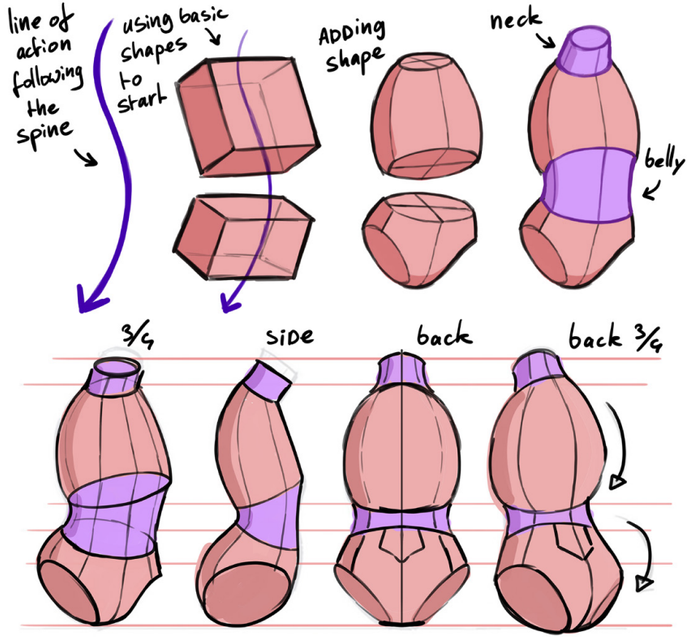
THE TORSO

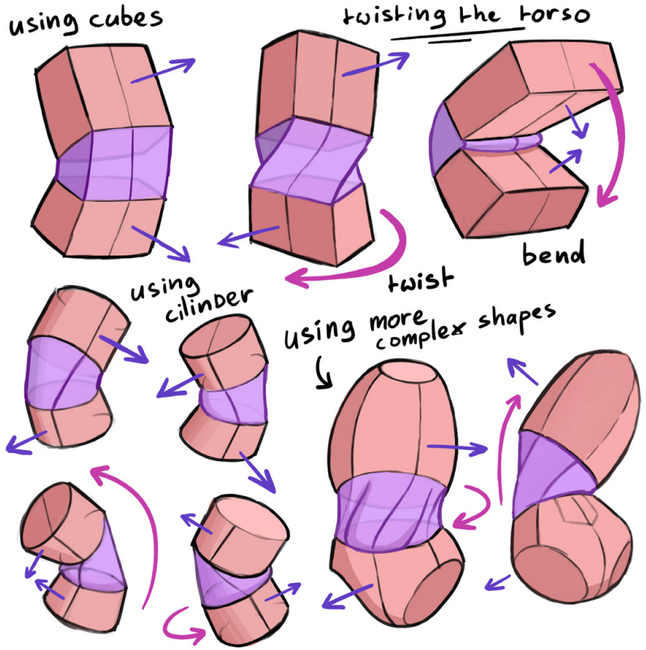
The torso is an important part of the body. It consists of three parts: the ribcage, the stomach, and the hips. The ribcage and the hips are hard rigid tissue. However, the middle part, the stomach, is soft tissue that can twist and turn.

You don't have to memorize all of the bones, but it is really useful to have a good understanding of how the body is built and how all the different parts are connected so that you can quickly draw a human figure without references. A helpful exercise could be to look up an image of the skeleton and draw it. It's important to be able to draw a simplified version of the human anatomy from the top of your head. On the right page is an example.

When drawing, I always start with a line of action. The line of action (or curve) helps bring your character to life. In this case, the curve follows the spine. Once you've established the line of action you can build shapes on top that follow the curve.

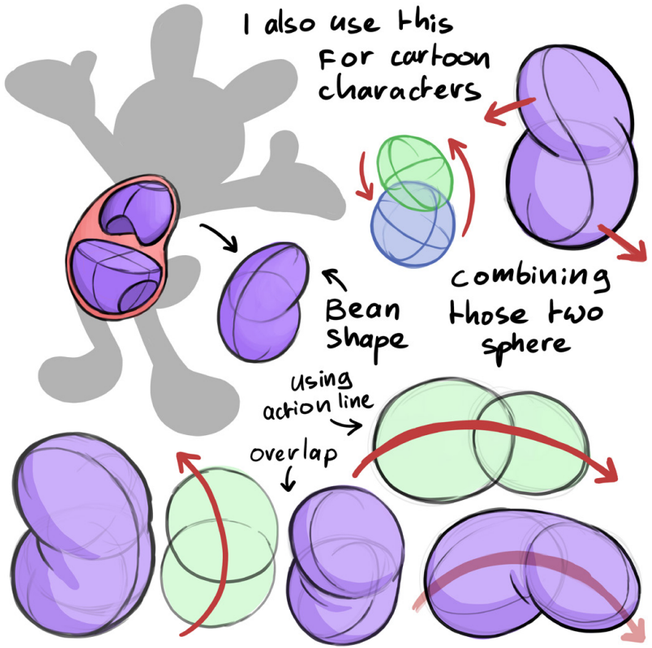
Often times I start with basic shapes like a cube. I like to start with a cube because it's easy to rotate around in 3D. Once I have those cubes in the right angle, I draw the final shape in it. You can see that I used simplified shapes (for example spheres, cylinders, and cubes) for the ribcage and pelvis.





Above I'm showing how I use these basic shapes to draw the torso in different angles with twists and turns. I start with cubes and cylinders. Once that is correct, I add more shape to it.

I also use this approach for cartoon characters. However, with cartoon characters the shapes are more basic and less defined. They resemble a bean shape, also composed of anatomic elements.



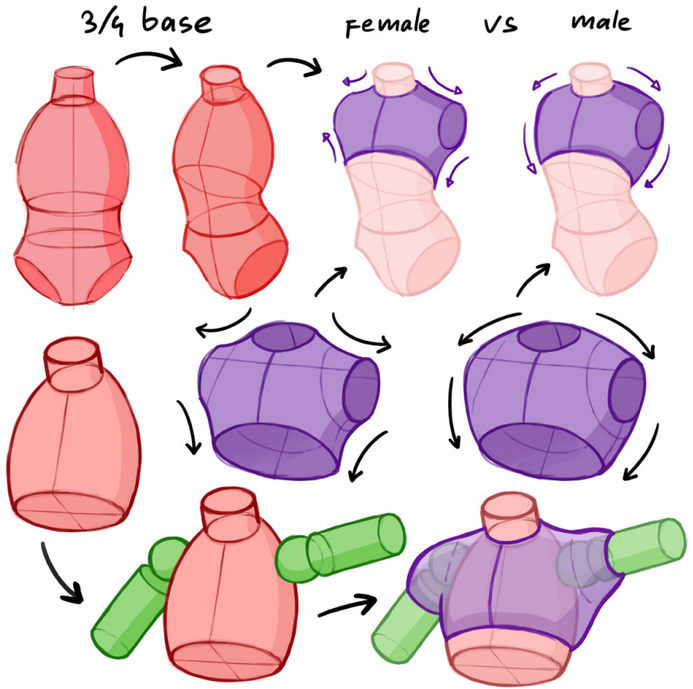
STUDY TIPS

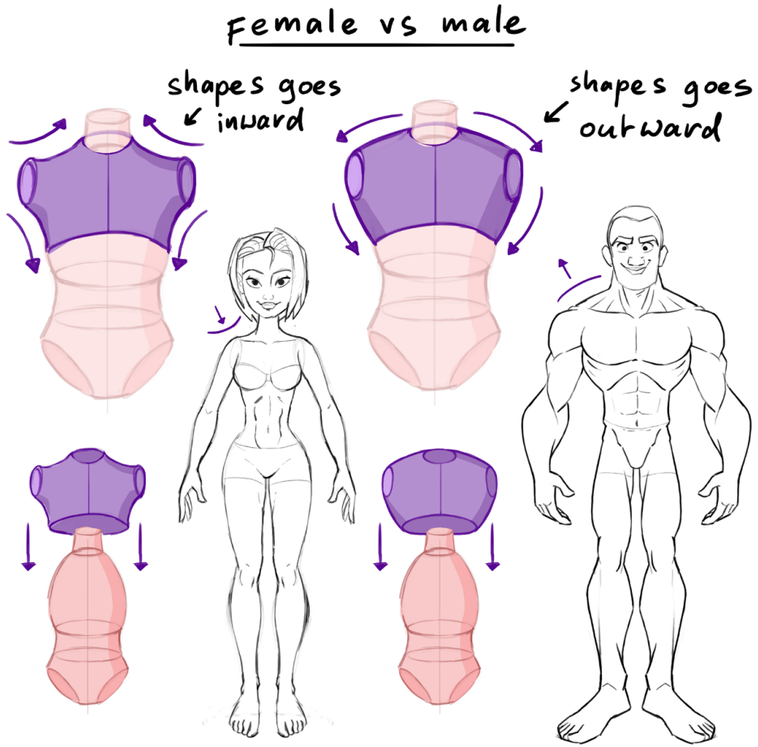
Fill a couple of pages with torsos in different positions, twisting and turning. Also try drawing a cartoon character using this process if you feel inspired.

THE CHEST

On top of the torso you can add this “vest” to further define and personalize the ribcage or chest. The male version bulges outward and the female version retracts inwards. Of course this is an oversimplification. Alternatively, females can have a very muscular body and males can be very skinny.

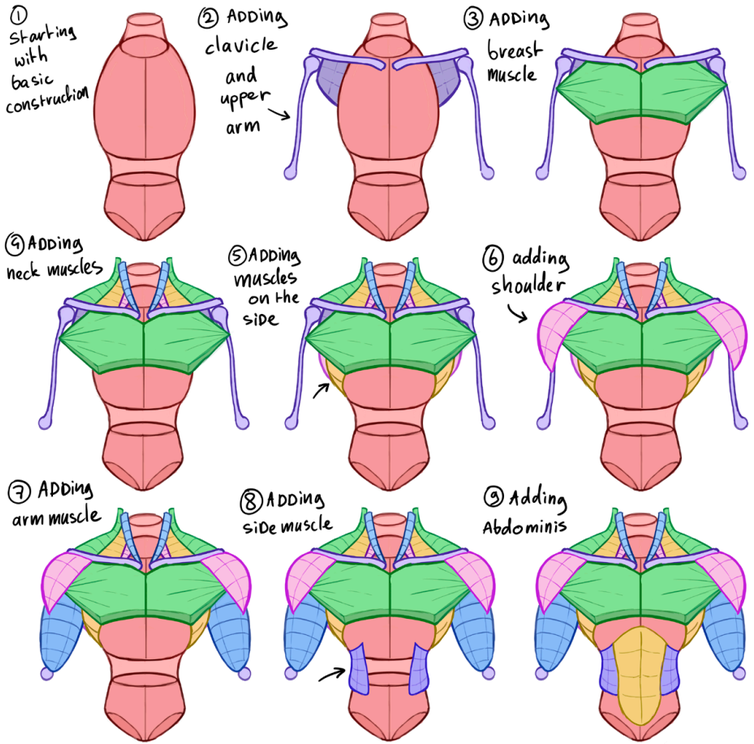
So try to see what happens if you play with these different dynamics, what happens with the character?



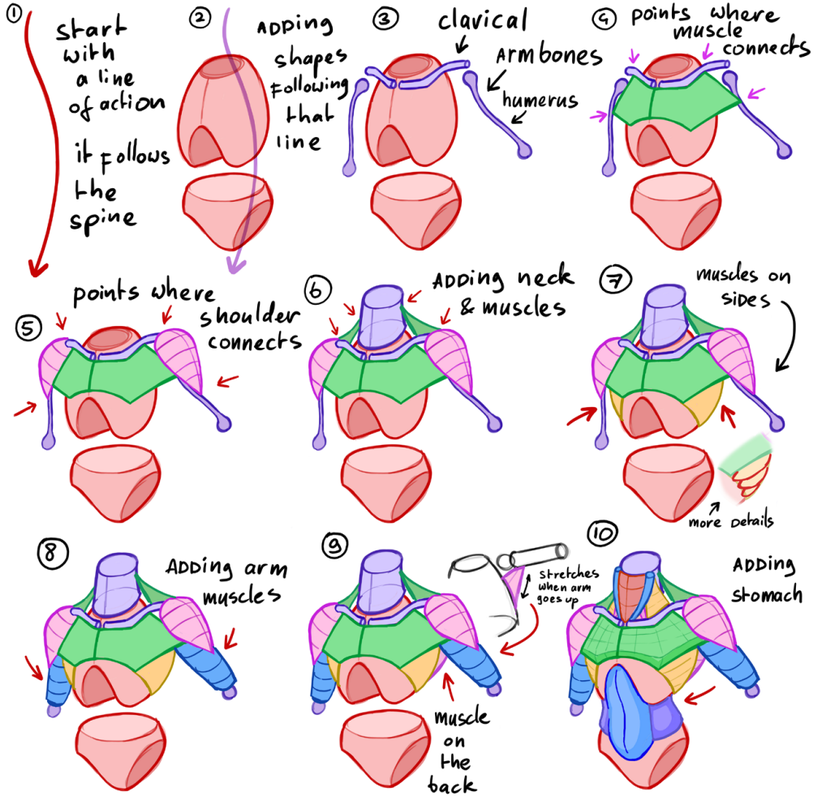


This is an oversimplified version of the torso and the chest, but it’s perfect as a starting point or as a basis to draw clothes on top of. This can be a good basis to draw clothes on top of because when drawing a clothed figure, you don’t need to illustrate the muscle structure beneath the clothes.

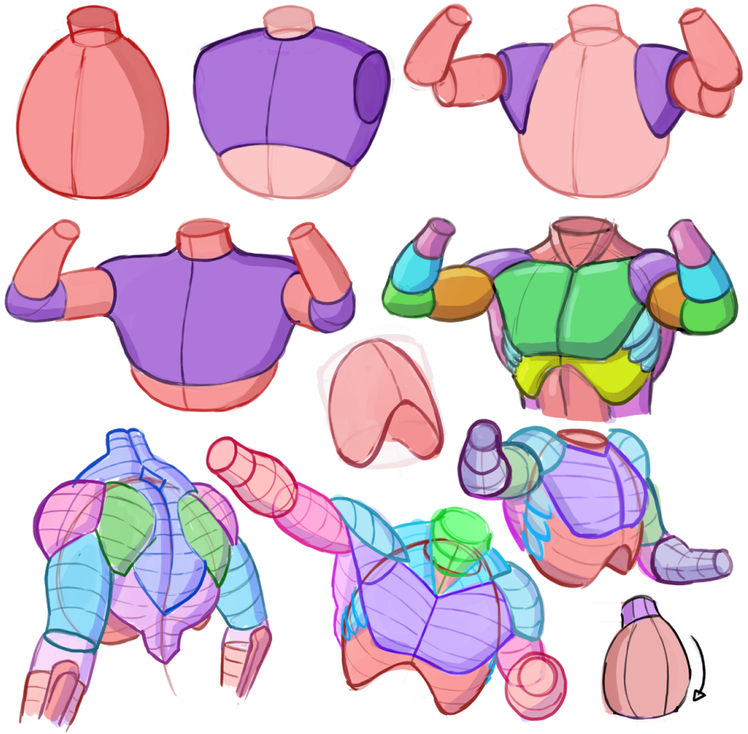
This can also be useful for drawings that don’t require a high level of detail, for example when sketching for a storyboard or drawing a character in the distance. For those purposes having these “shortcuts” can make your life much easier!



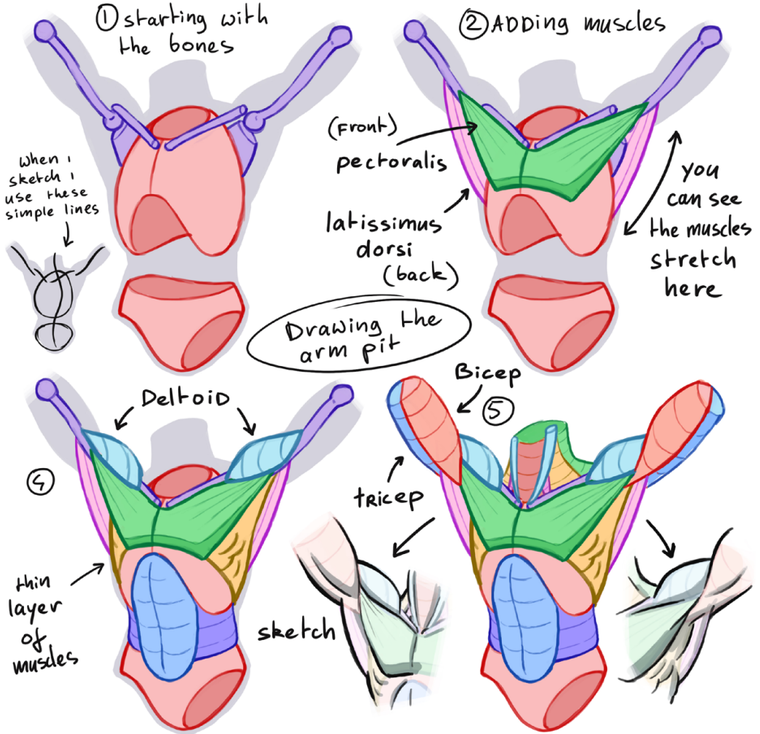
As I mentioned before, I haven't memorized all of the muscles of the human body so I use these simplified muscles. Following these steps helped me to remember all these muscles and eventually recall them more easily after a lot of practice. Often I use stylized characters, playing around with the proportions. That's not a problem with this method of drawing muscles.

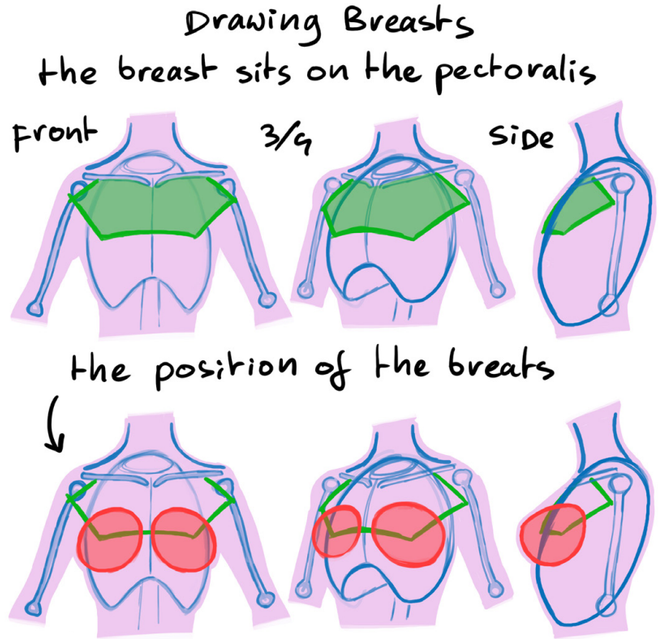


Building on the base we learned in the previous exercises, I add these shapes for the shoulders and breast. In these examples you can see where they are attached and how they can be stretched. It's important to remember that muscles are flexible and bones are rigid.

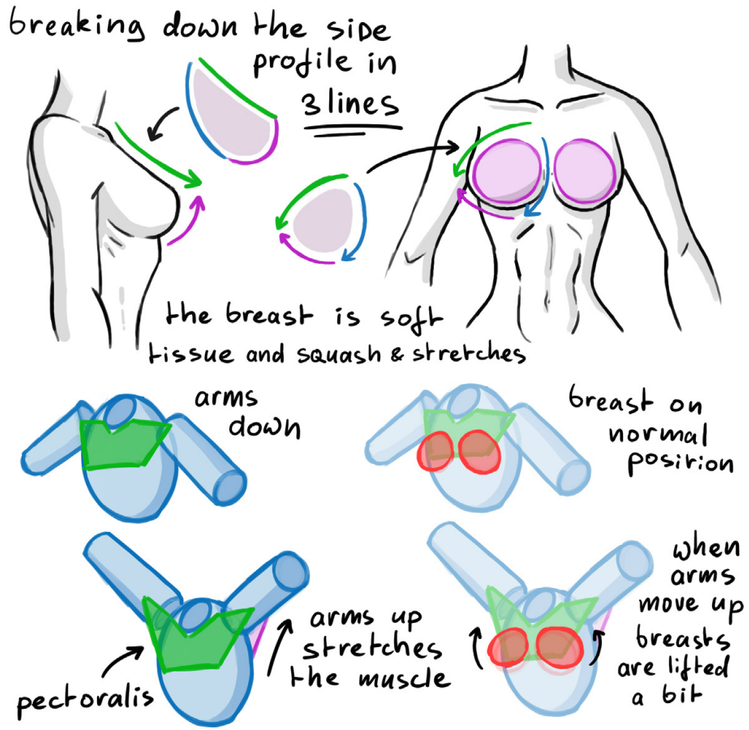


Here I've drawn the armpit. When you put your arms up several muscles, like the pectoralis (breast), are stretched while the deltoid (shoulder) bulges out.





Drawing breasts can be challenging. When I realized that I could draw the pectoralis then add the breast structure on top of that, I was able to add the breasts in the right location.

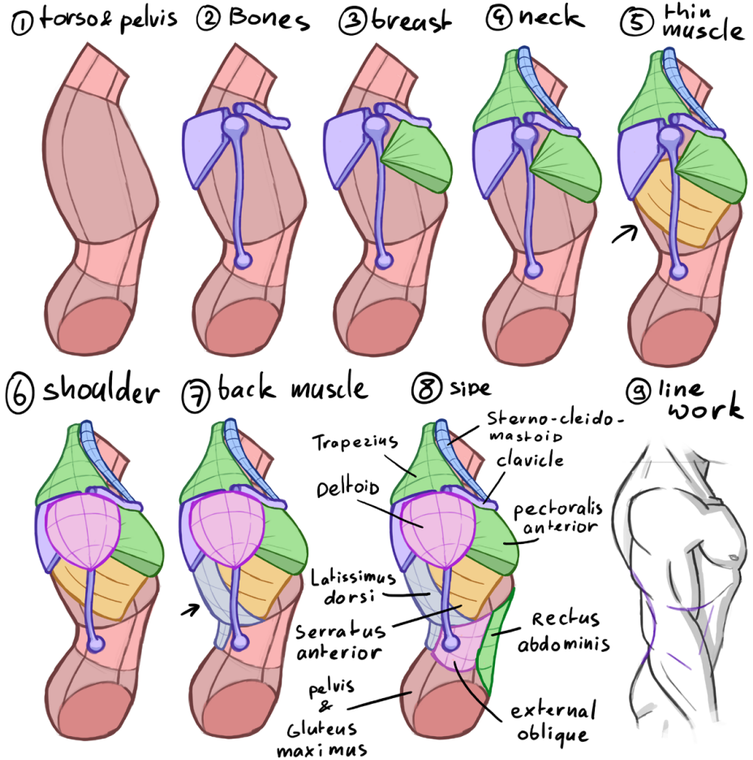


The breast is not a perfect oval. I like it to draw it from three different angles (see image).

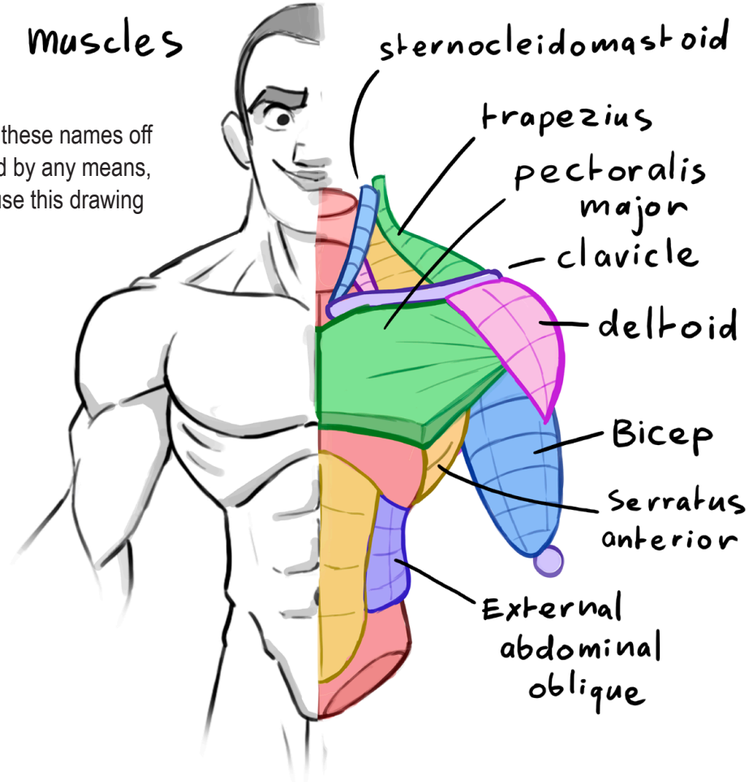
When you move the arms up in the air the pectoralis becomes stretched upwards and as a result, the breast is also pulled upwards from the upper portion of the breast.

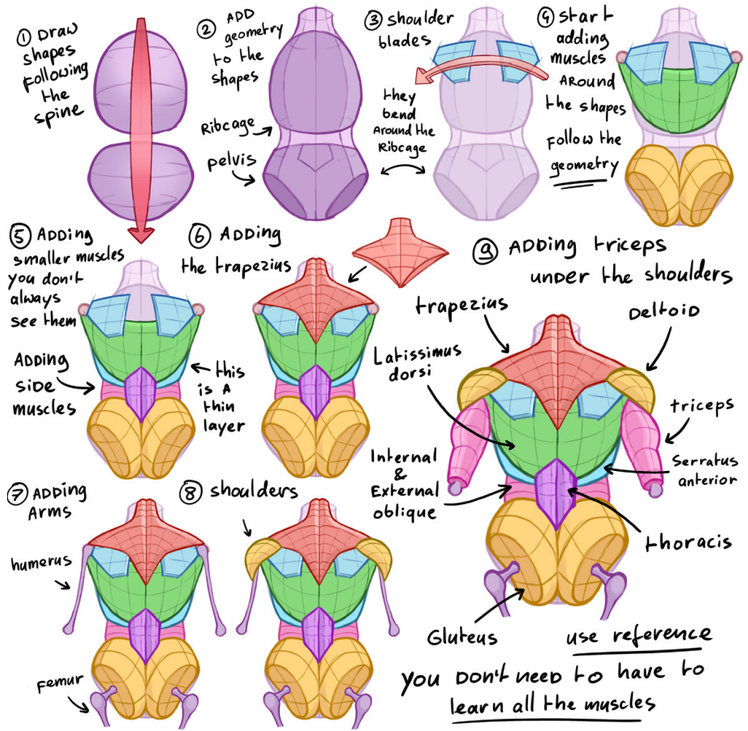
Naturally, breasts vary from person to person. This is why figure drawing is important. If you can, I would really recommend that you follow some figure-drawing course in your neighborhood.

These are the steps I follow to draw the muscles of the torso from the side.



I don't know all of these names off the top of my head by any means, but it's helpful to use this drawing as a reference.

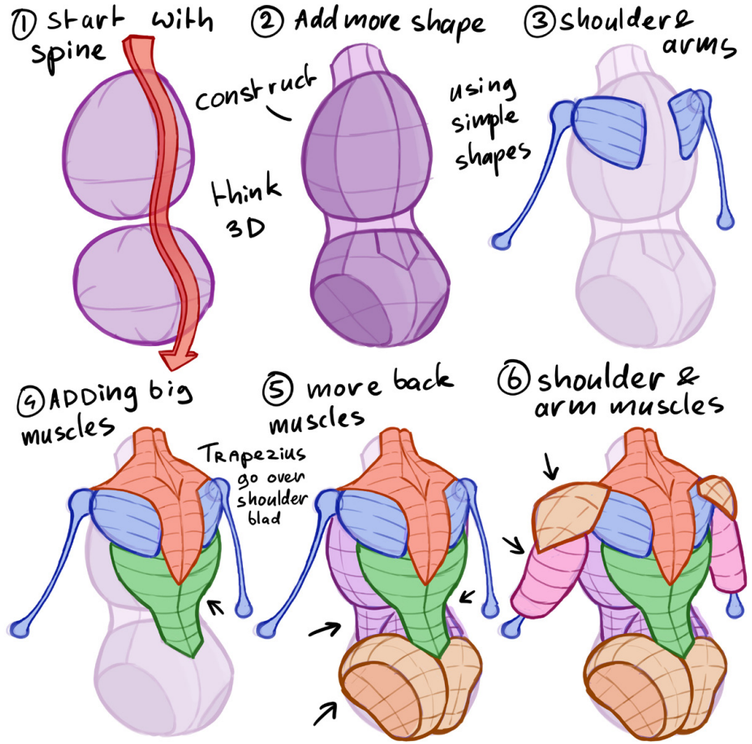




THE BACK

Above is how I draw the back muscles. The back is comprised of some very large and strong muscles. It also has a lot of smaller muscles. I combined those smaller muscles to make it easier for me to draw. For the goal I have it's not that important to be precise.

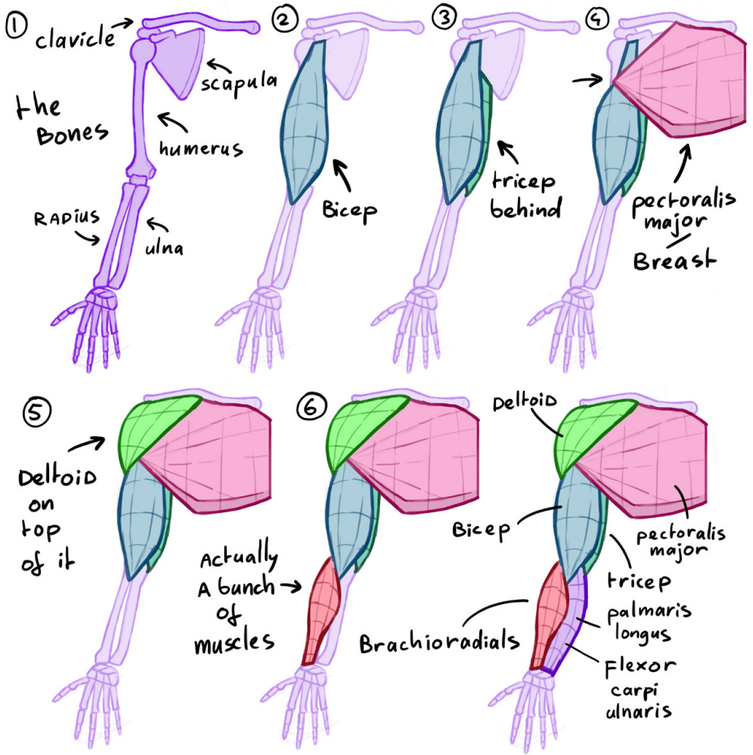
Here I draw the back muscles from a slight angle. In this exercise I used a slightly different approach for drawing the muscles. Sometimes I try different things to find out what works best for me.

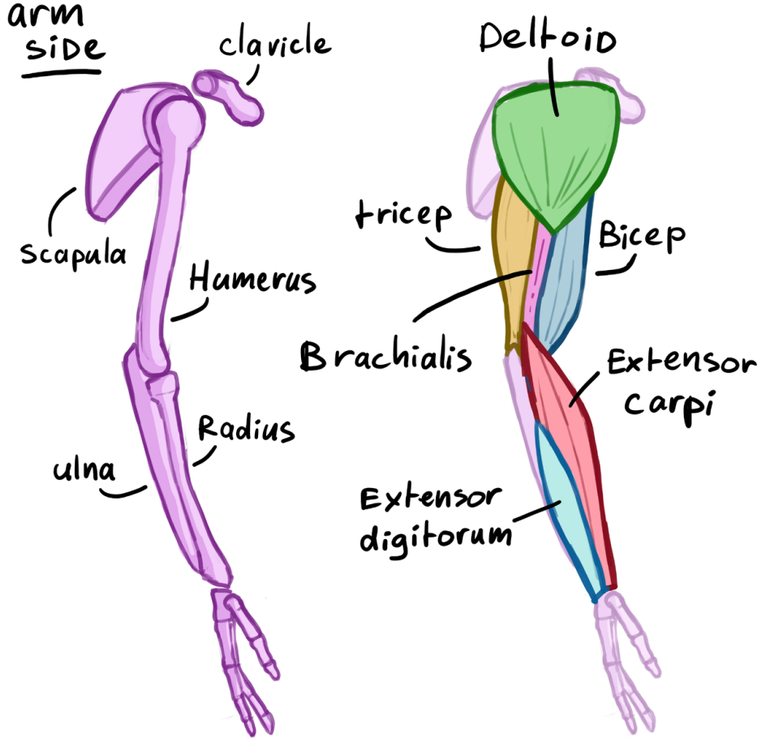


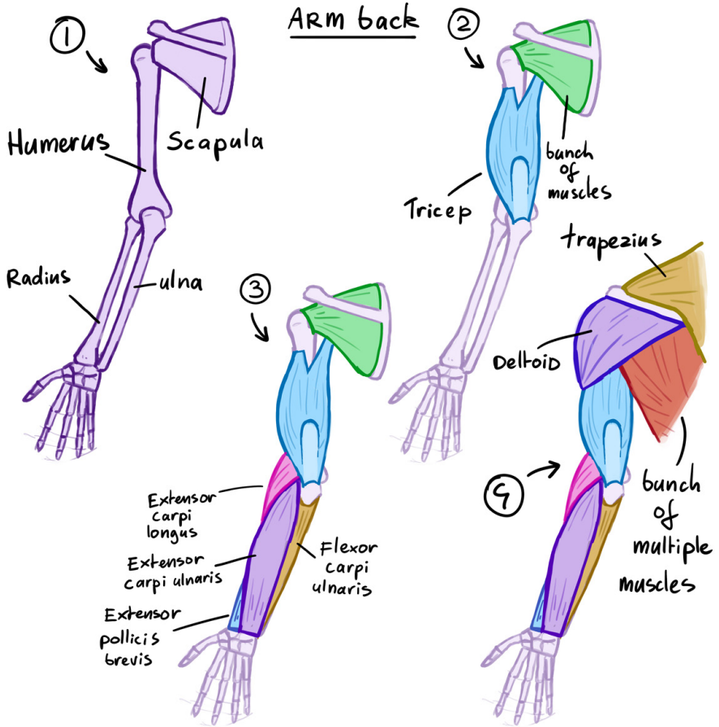
THE ARMS

ARM MUSCLES

Here is a breakdown of the muscles in the arm. It can be quite tricky to draw the arm because the underarm can rotate. Simplifying the muscles in these shapes can help with overcoming this challenge.

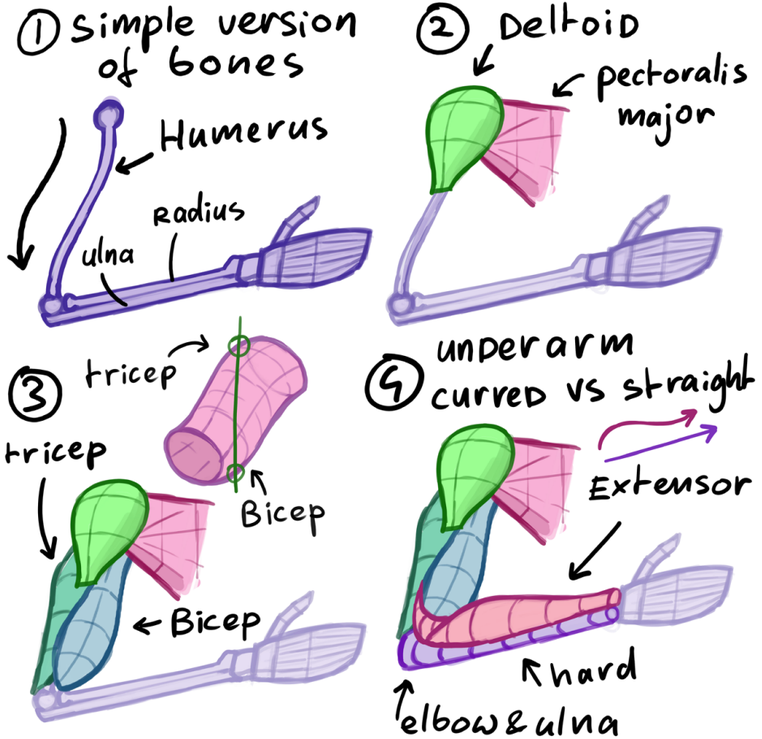


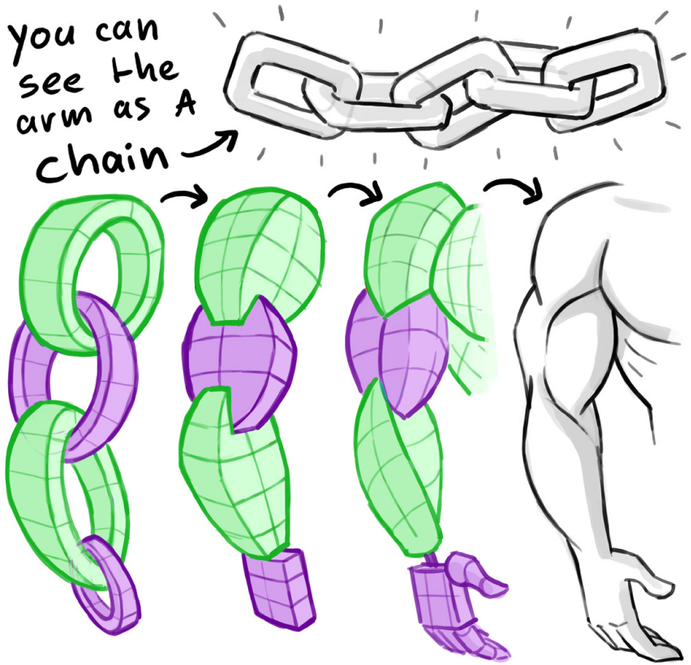




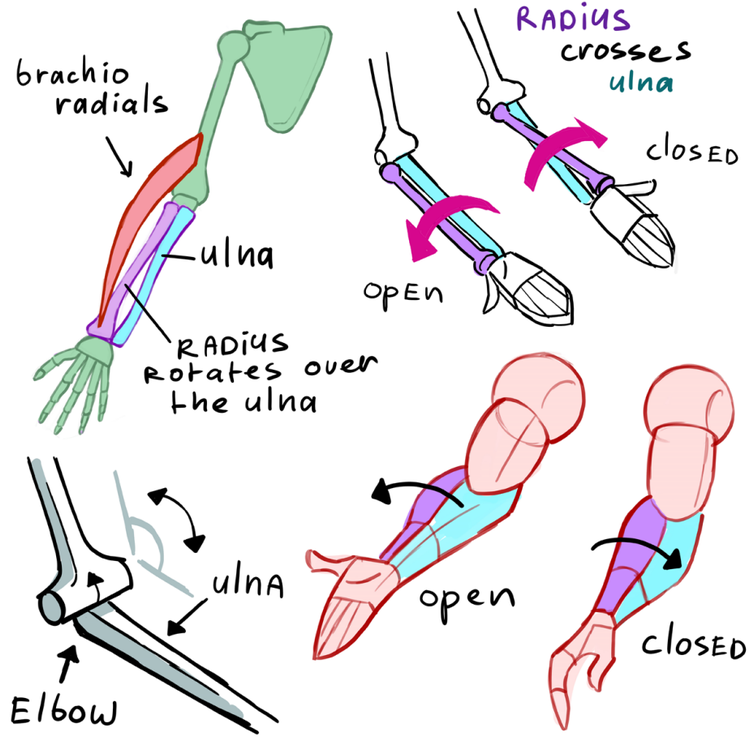
Left, is the back of the arm. Note that the radius can rotate over the ulna so the muscles can twist a bit. The radius is always at the side of the thumb.

Here is the side of the arm. When the arm is pulled upwards the bicep bulges out and the tricep is stretched.





A funny trick to help with drawing the arm is to think of it as a chain. Each group of muscles is a part of that chain. There are more places in the body where this can also be applied (legs for example).



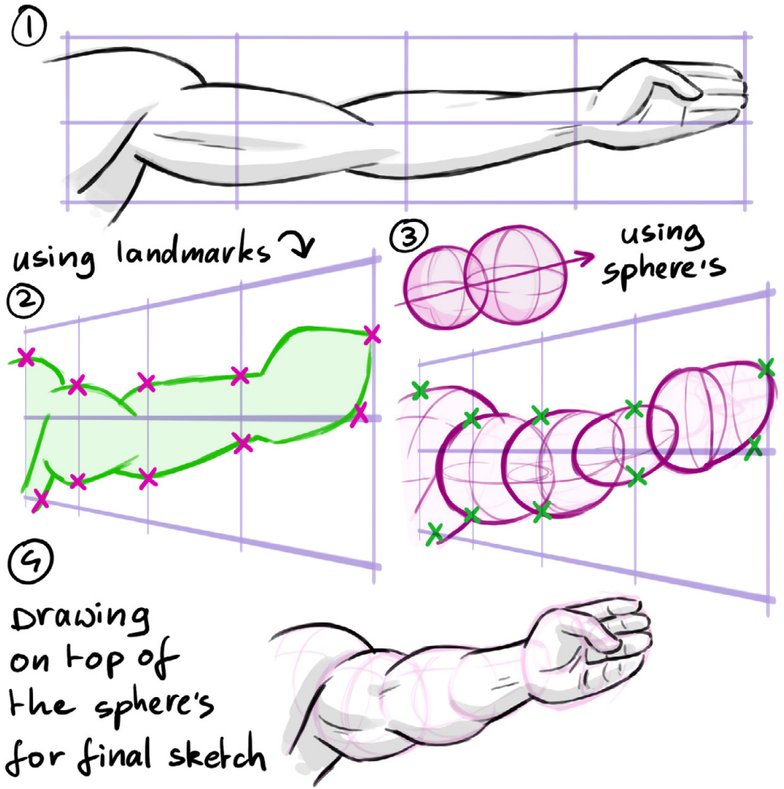
As the arm is made up of many different muscles, I keep the following basics in mind when drawing the arm. The trickiest part of the arm is the under arm because it can rotate. The radius rotates around the ulna (the bone that ends in the elbow) and both of these bones are attached to the humerus.

I don't try to remember all the names of the bones and the muscles but remembering the radius helps to remind me how the hand twists.

FORESHORTENING

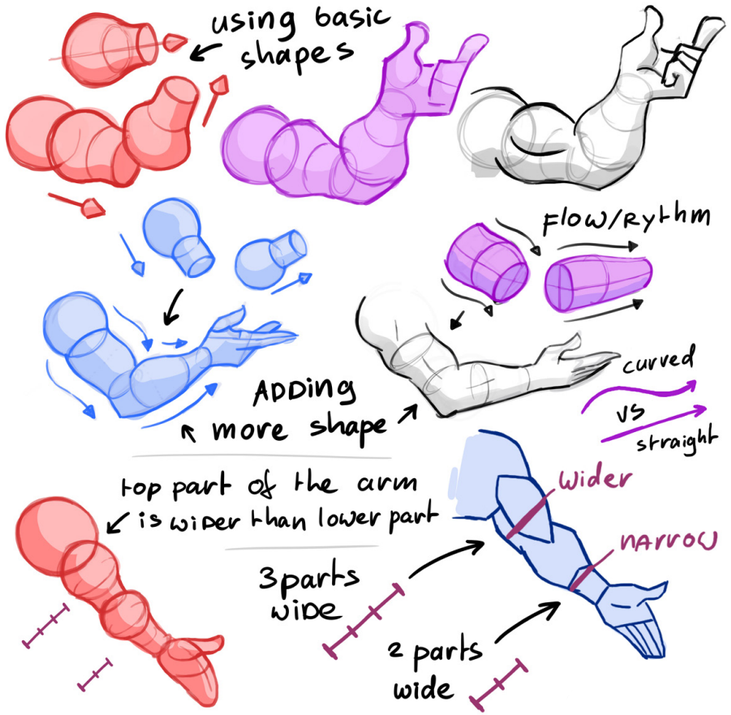
Foreshortening is when a shape moves towards the viewer, creating depth. You can see this clearly with the cylinder. An illusion is created, making the shape (in this case the cylinder) look more compressed and smaller towards the back of the shape then that it actually is.

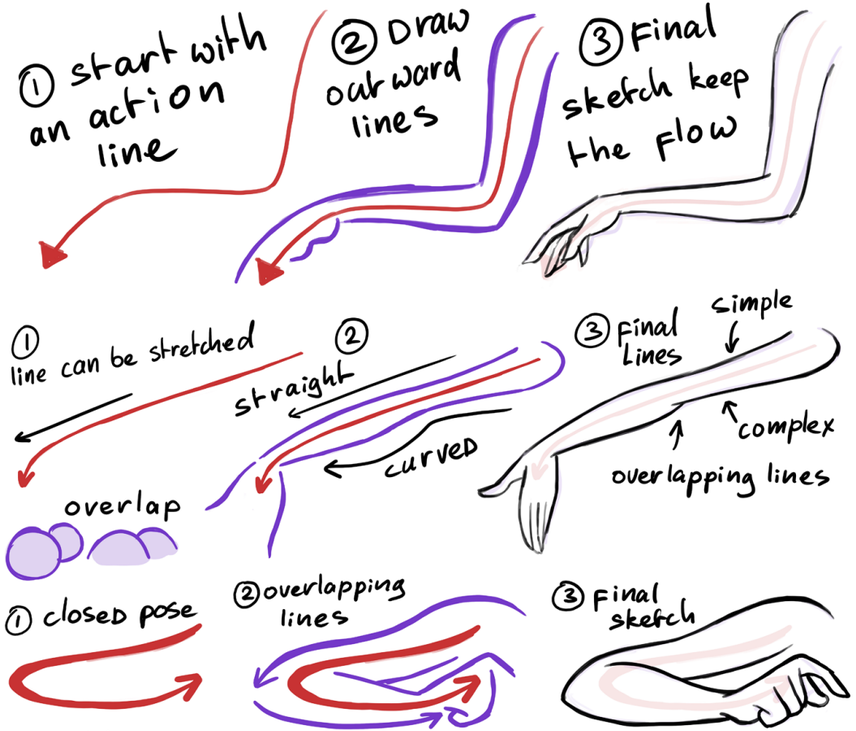
This can also be applied to drawing the arm (shown above). Using this overlap flow helps create a dynamic arm with interesting shapes, avoiding stiff arms. Beginning your drawing using these big shapes helps with drawing foreshortening. Then, using landmarks on a grid, you can better understand the perspective and proportions.

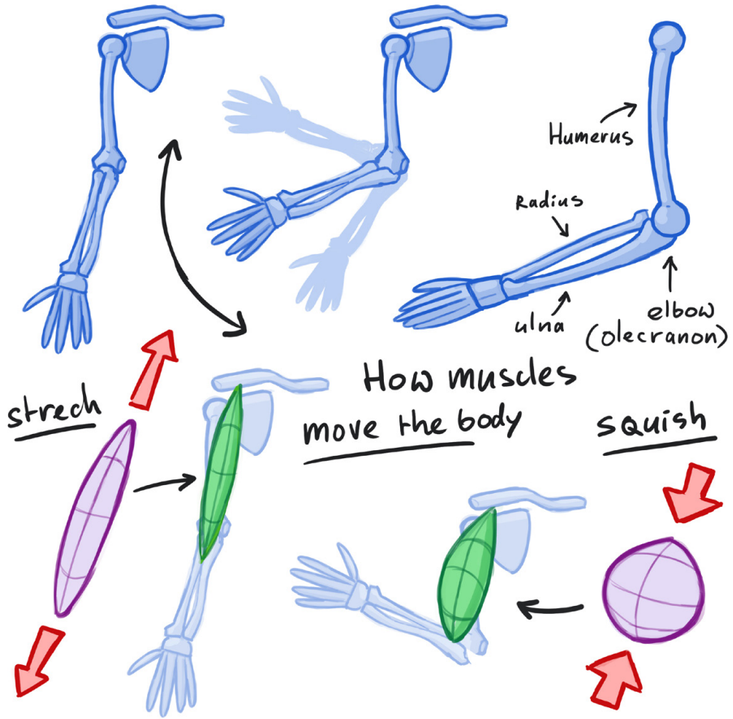


LINE OF ACTION

You can draw the arms in a variety of ways. I like to start with a flowing gesture line, or action line. So for the arm post, I first draw this flowing line and add lines outside of it. The arm is the widest at the top or shoulder and the most narrow at the wrist. After drawing these first lines, I add geometric shapes and then I add the muscles.



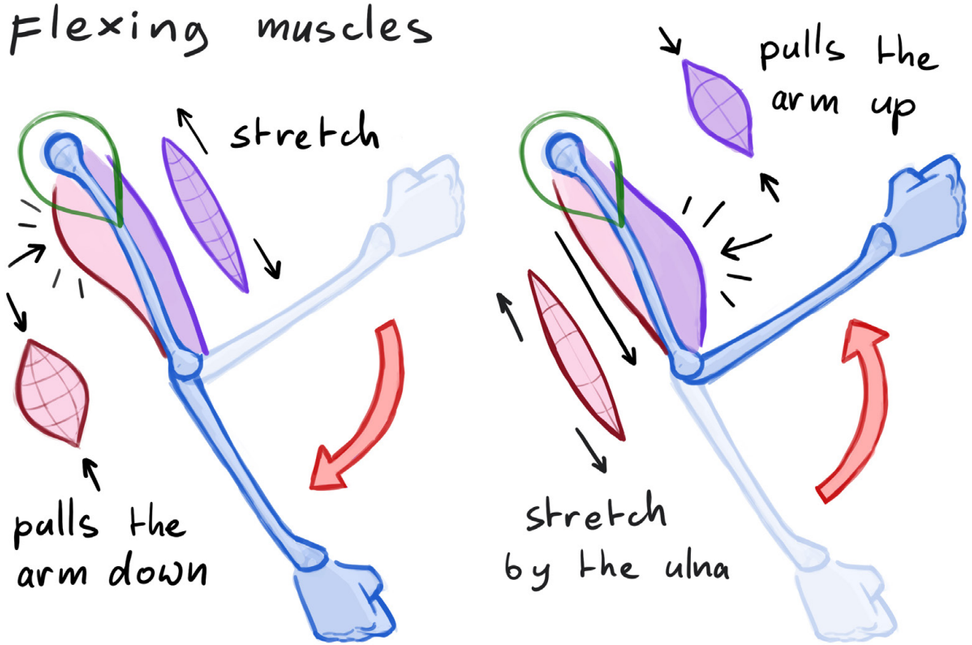




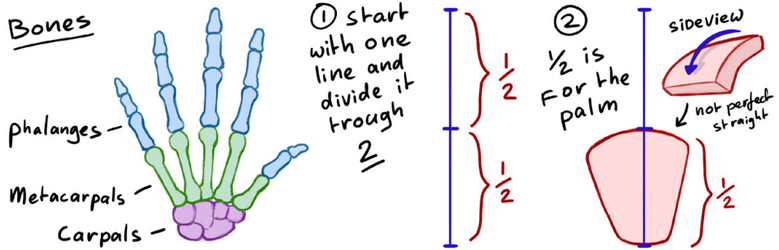
MOVEMENT

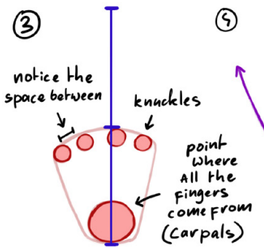
It's important to understand how the muscles move the body.
Muscles are attached to the bones. When a muscle contracts it get's shorter and pulls the arm up (as in the example above with the arm). When a muscle relaxes it goes back to its regular size. Muscles can only pull and not push. Instead of pushing they relax.

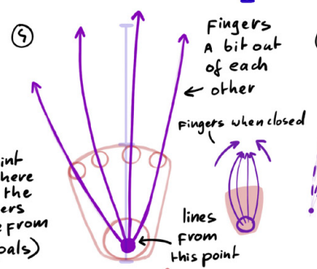
In this example I show how the lower arm is pulled up by the bicep, which bulges and becomes shorter. When the arm is stretched and straight you can see that the tricep becomes thicker (and shorter).

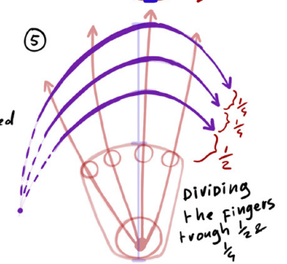


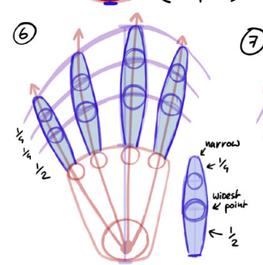
HANDS

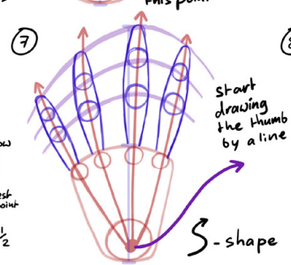


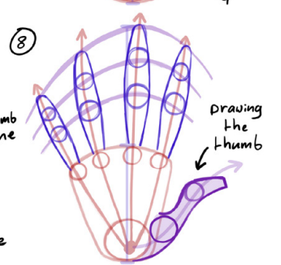








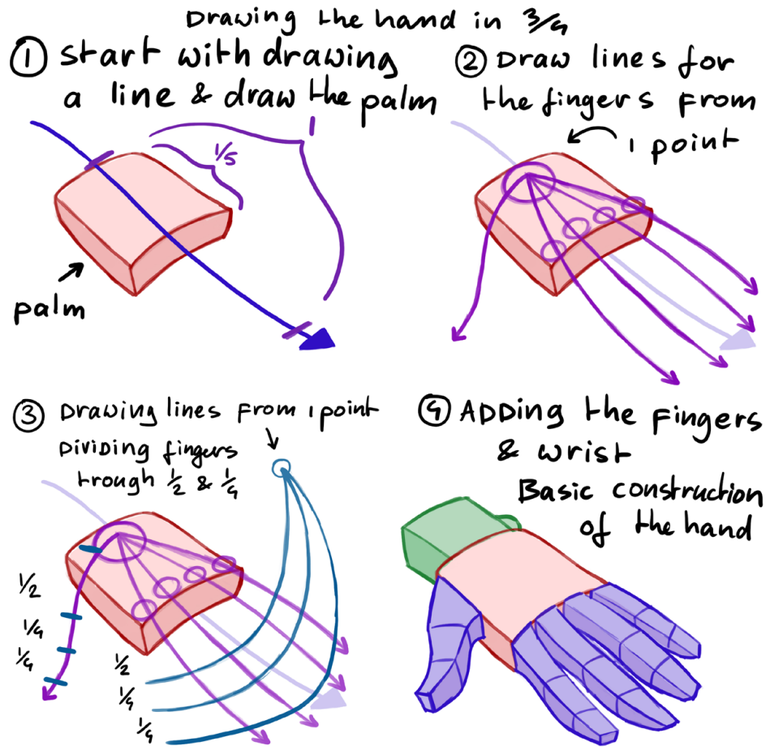




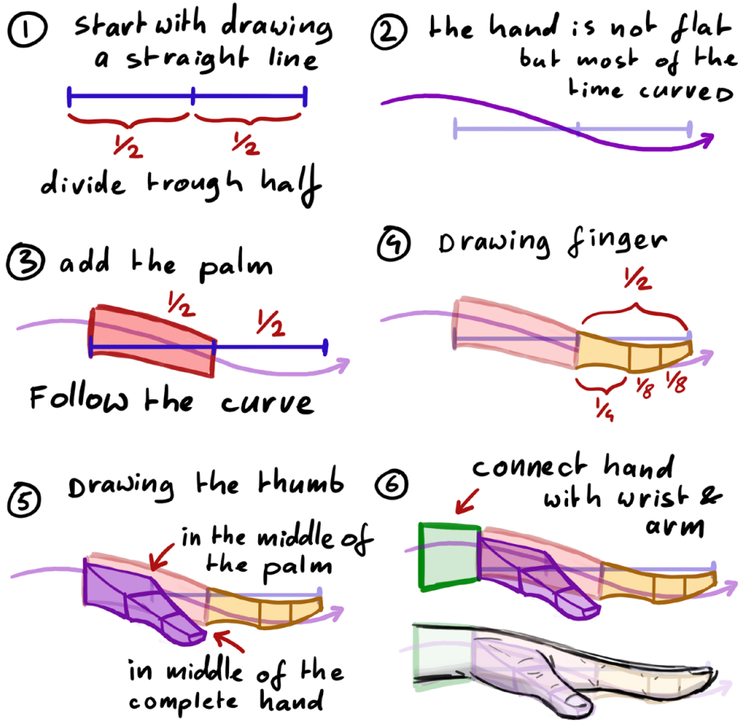
THE HANDS

The hand can be very tricky to draw because there are so many small parts in it that can rotate or bend. It's important to at least understand how the hand is built, even when you aren't drawing a detailed or realistic hand. So I start with a detailed version and simplify it more and more.

It's amazing how far you can get with using shapes to represent these more detailed areas and using those points as landmarks. That's the method I demonstrate with these hands as examples. This method also works in perspective.

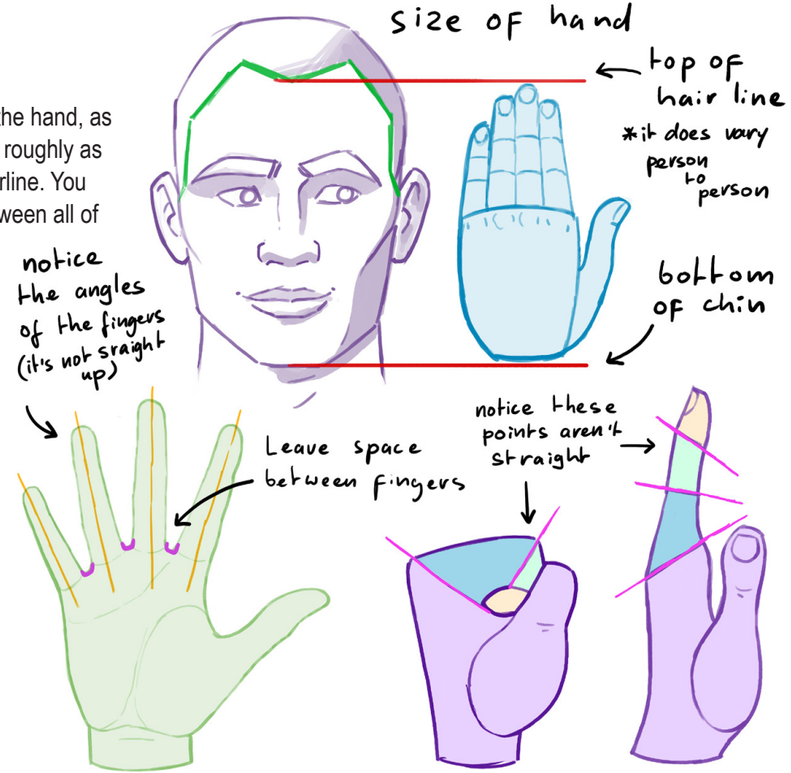


The same steps as I've shown on the previous page, but now from the side of the hand.



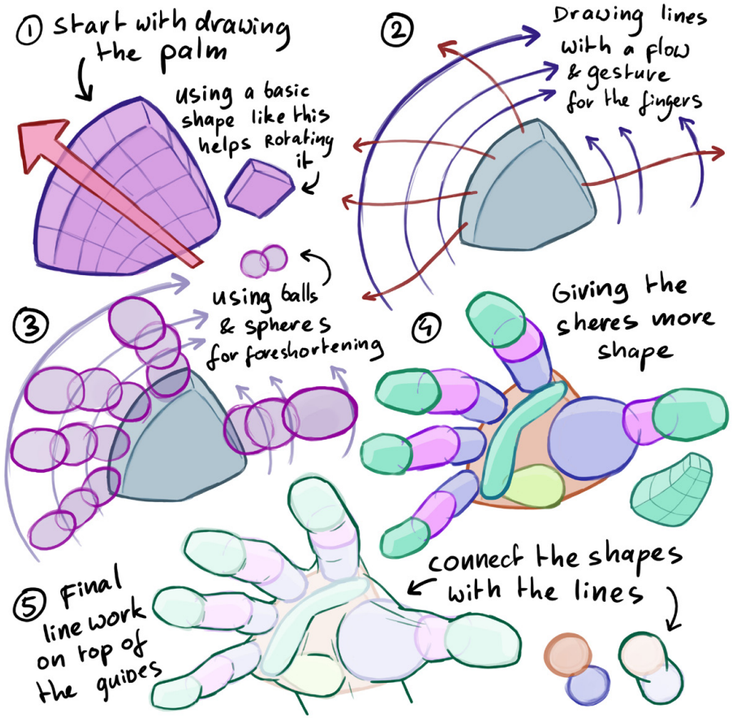
SIZE

It's quite easy to figure out the size of the hand, as it's just a bit smaller than the head. It's roughly as big as the bottom of the chin to the hairline. You should always leave a bit of space between all of the fingers.



FORESHORTENING

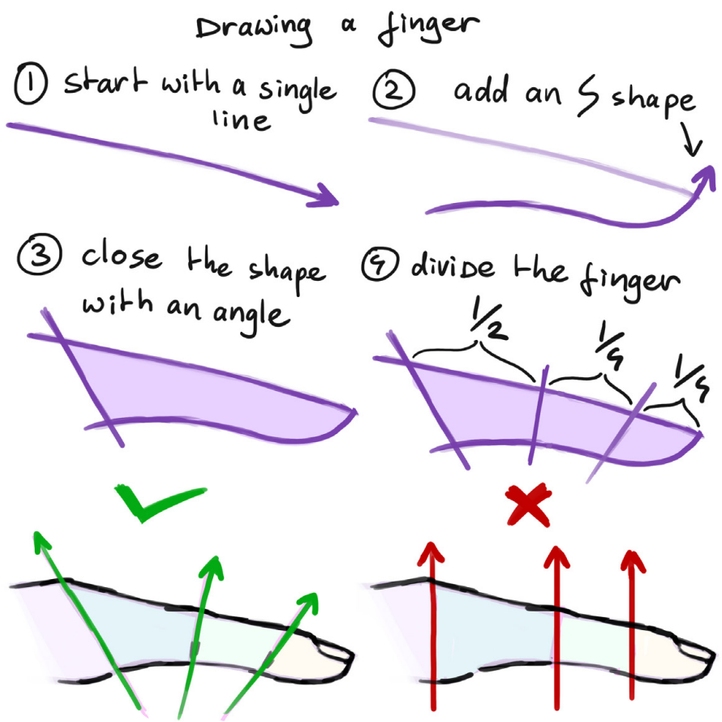
Here I show how to draw a hand with foreshortening. Drawing with foreshortening is quite difficult, but starting with using these basic shapes makes it a lot more manageable.

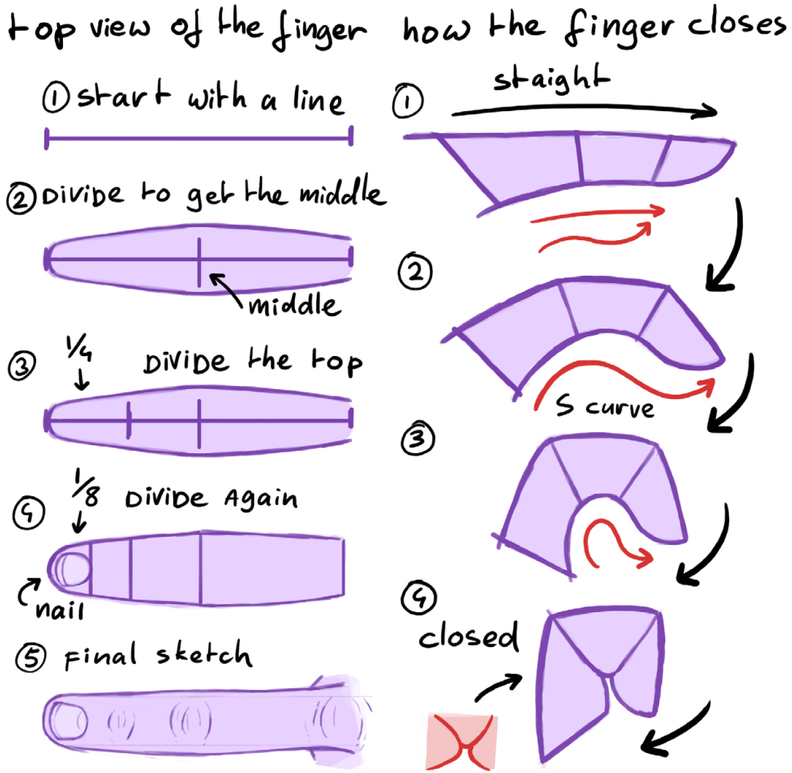


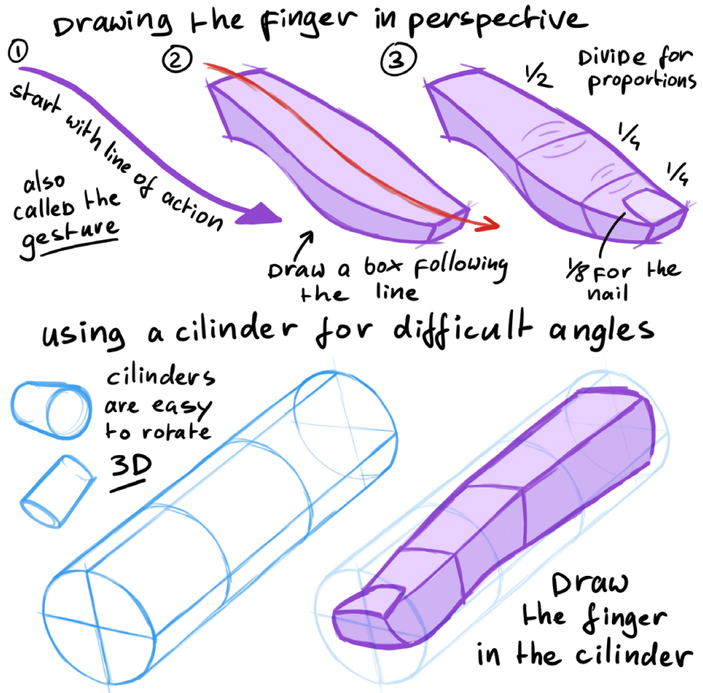
I recommend making some photos of your hand and drawing it in different angles. I always start by breaking the hands down in basic shapes and adding geometry (the 3D lines), saving the details for last. When you practice this it really helps you understand how the hand is drawn in different poses in space.

FINGERS

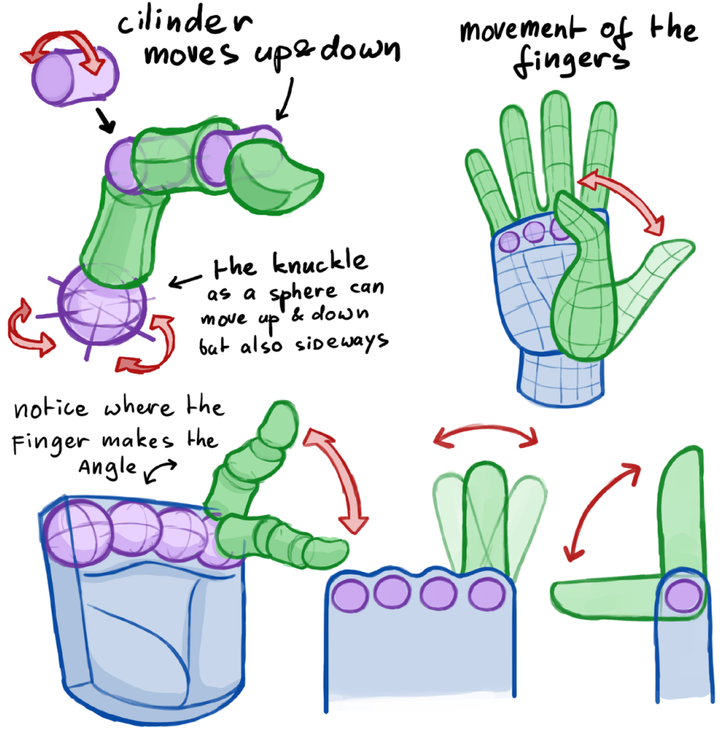
This is the formula I use for drawing fingers. It also shows how it looks when you bend the finger. As you can see the top is straight and the bottom is curved. You can see that there is an “S” shape to the bottom of the finger that remains visible also when the finger is bent.







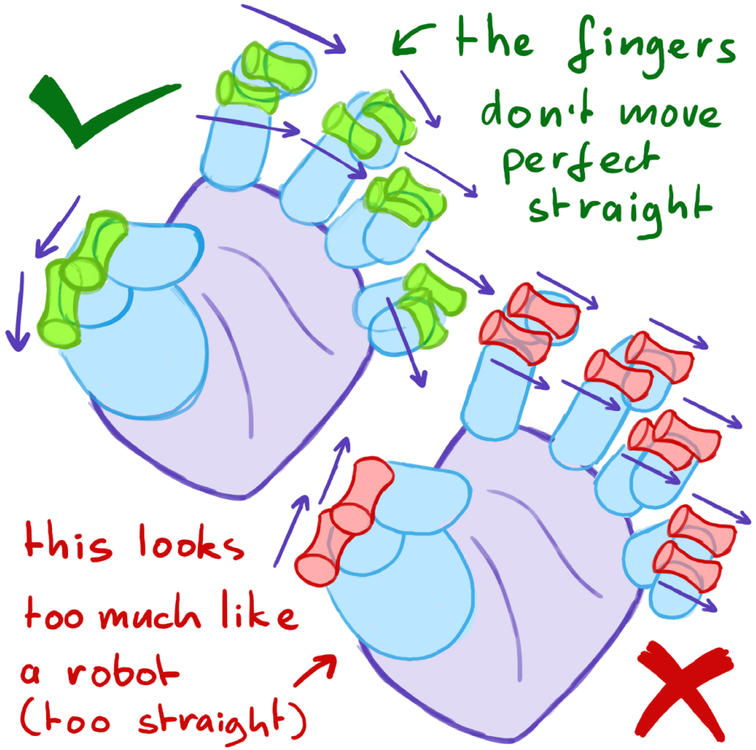
When you have to draw the finger (or actually anything) in a complex angle or perspective, using a cylinder or box can really help to draw it accurately.



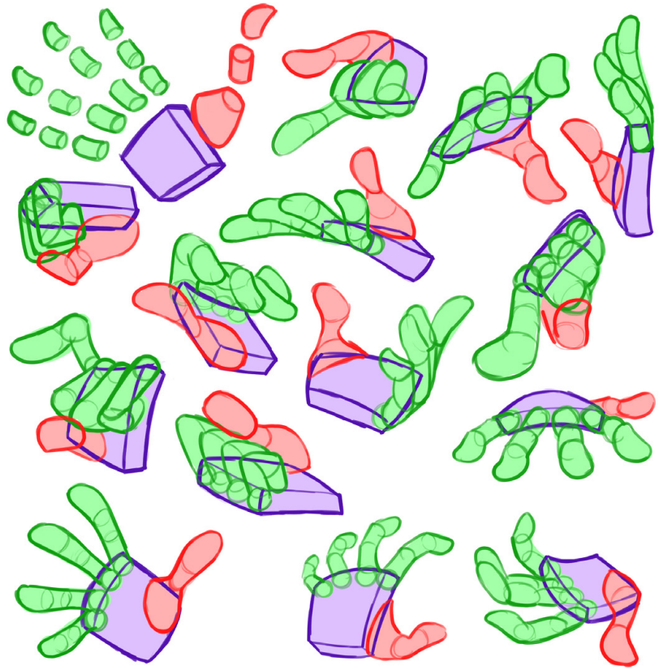
MOVEMENT

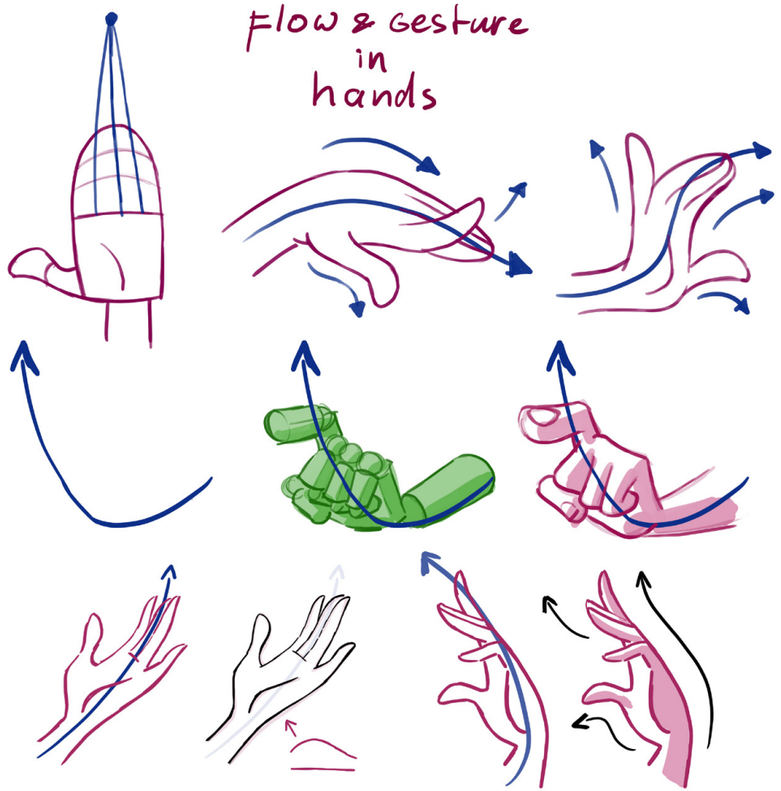
Here I show how the fingers move within their joints. It's important to note that the fingers have ball joints which make it possible to wiggle your from side to side as well. Also take note of how the fingers bend on top of the knuckle; this is a common mistake made by many illustrators. Notice how the fingers bend on the hand and how the knuckles are drawn. I'm also showing the basic breakdowns of the hand here, which are perfect for the first sketches.

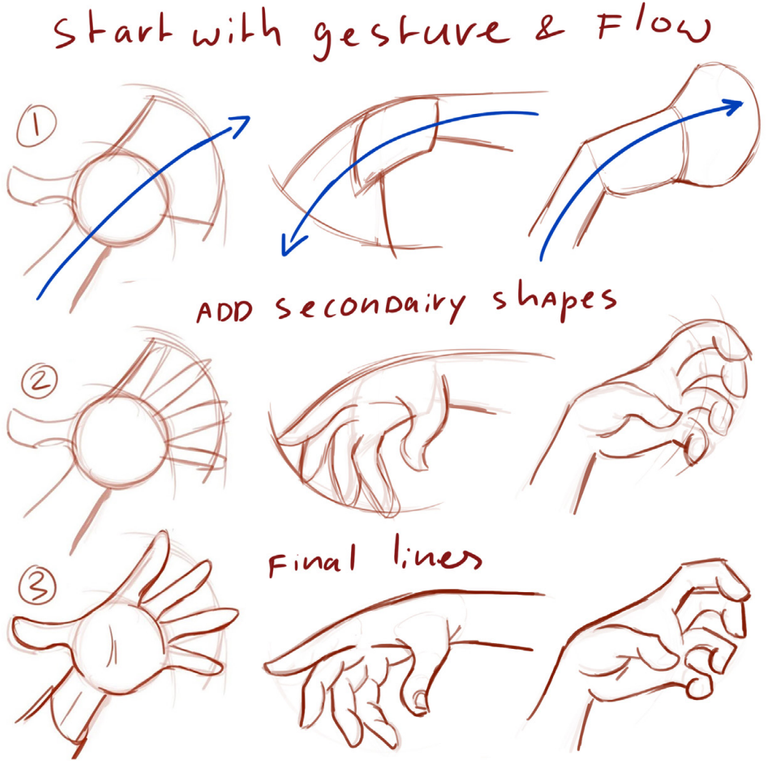
When drawing bent fingers it's important that you don't draw them all in the same angle. Fingers do wiggle, so they aren't all aligned perfectly. If you draw them too straight they will look too mechanical or like hands of a robot. Keep it organic.



Here are more stylized breakdowns of hands. This is the style I use the most, still utilizing all of the steps I showed earlier.



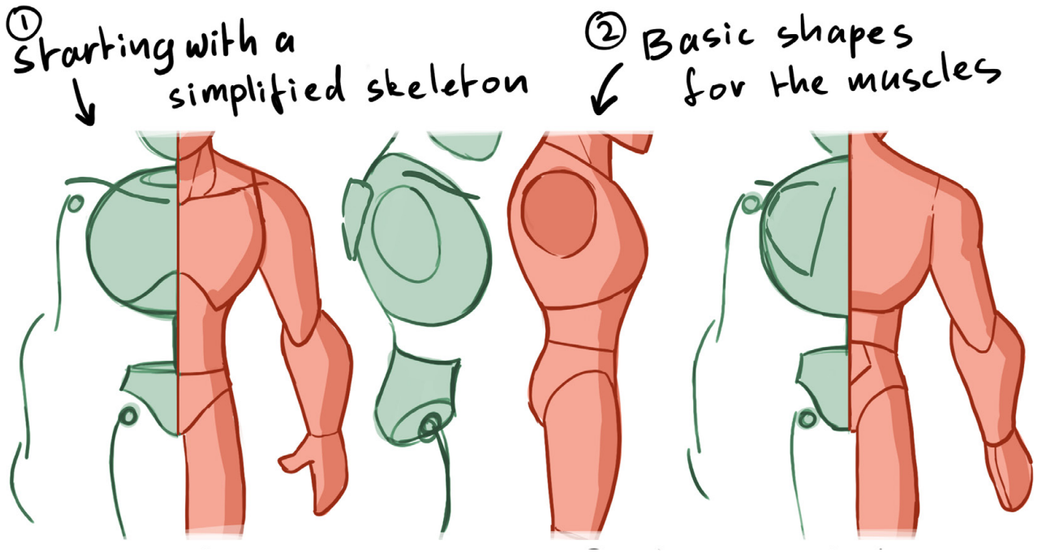


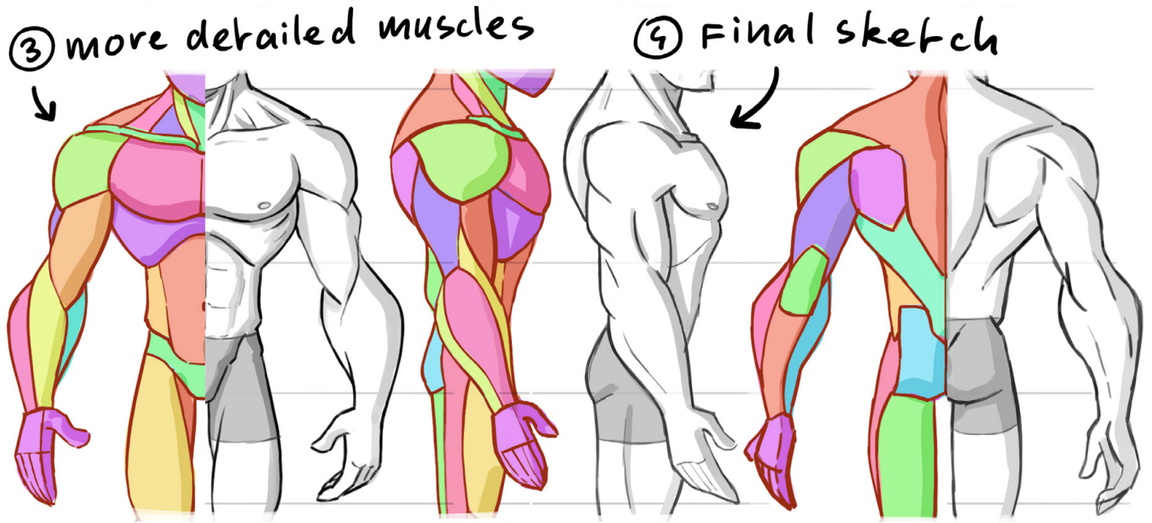


GESTURE

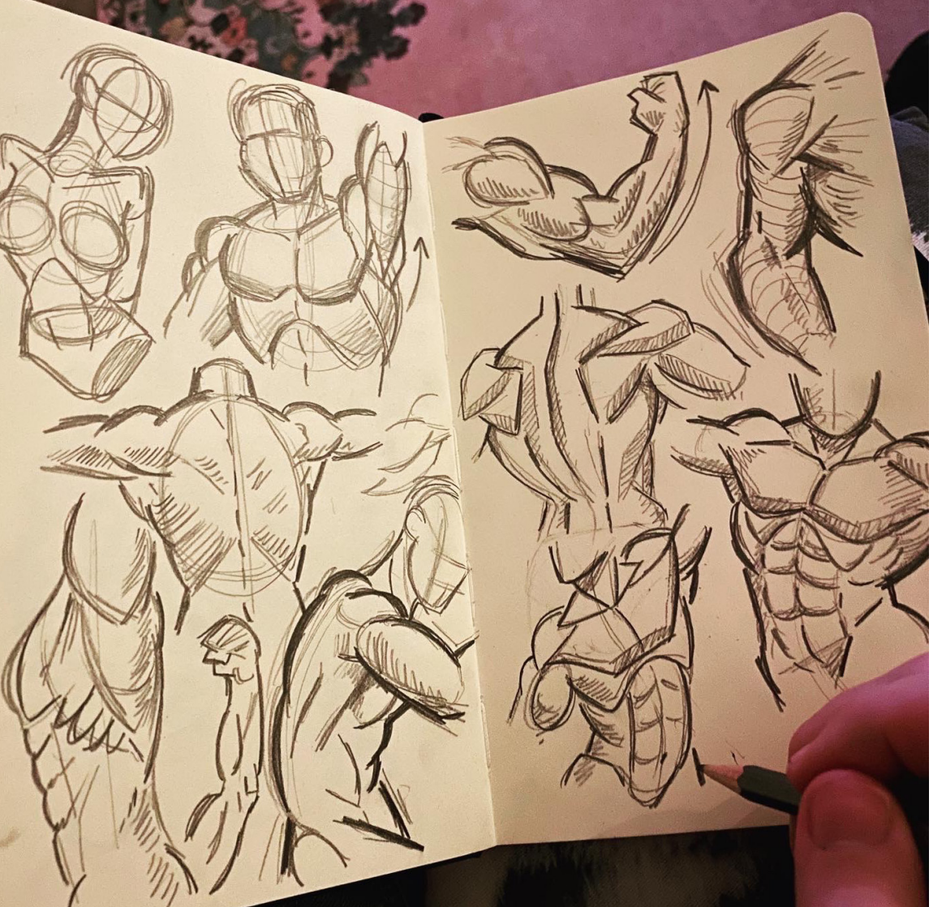
When I'm sketching or doing gesture drawing I start with these flowing lines, helping to create a lively drawing. You can think of it as flowing water. It really helps when you are starting with these curved lines as a base and use them as a guide to then add further details. This will make the process easily understandable for yourself allowing you to more easily create a lively gesture in your drawing.

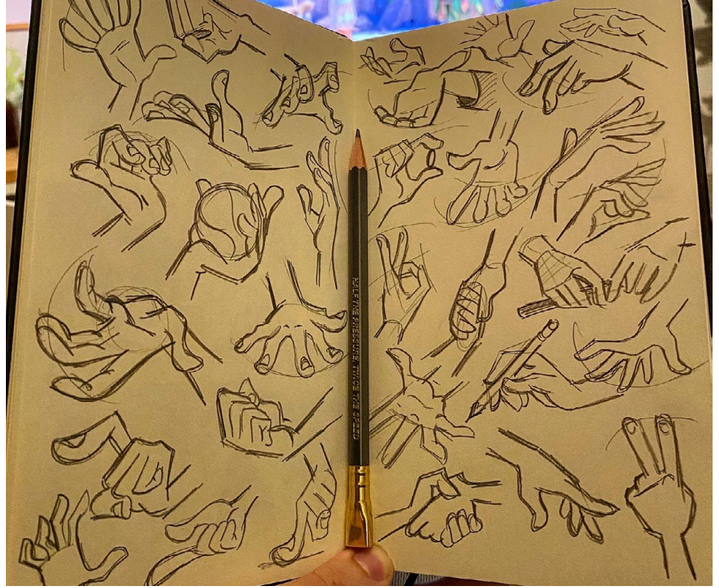
CONCLUSION & THANK YOU

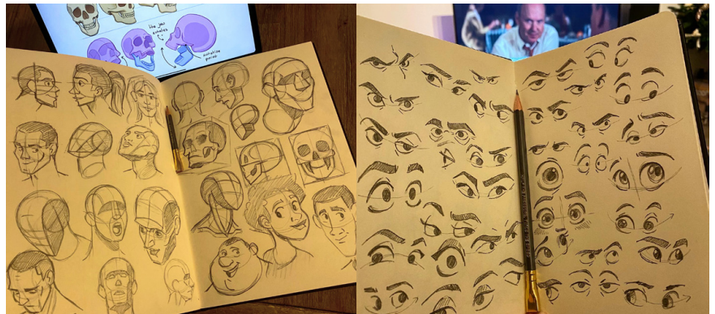




Here is an example of the complete torso with arms in a stylized style. You can also see how I've drawn the skeleton in a really basic way. This is also how I draw the torso when I sketch it roughly.







SKETCHBOOK

Using a sketchbook is a great way of getting better at art! My goal is to fill two pages a day. Here I picked out some of my studies. Sometimes I go to my favourite search engine and look up some reference material. For muscles you can find some great pictures of bodybuilders flexing their muscles. You can also search for head angles, hands, eye expressions and more.

Just start sketching whatever inspires you!

THAT'S IT!

Thanks for reading the book. I hope it helped and you to have a better understanding of how to use and draw anatomy. All of these things definitely helped me and I'm still learning.

The thing with drawing is that you are never done learning. Being an artist is a bit like being a gardener. You always have to water your garden or it will become dry and eventually dies. So always keep learning and try to find water for your garden. With this, I mean it's important to always keep studying and learning.

If you have any questions or want to show me some of your studies, drop me a message on my Instagram!

Best,
Mitch Leeuwe

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