



## CONCEALMENT TUNE-UP



**Since** 2010, PHLster has been making holsters, developing concealment strategies and equipment, tailoring custom holsters for individuals, and helping thousands of users optimize their equipment for concealment and performance. Concealment Tune-Up is an introduction to the basics of the tools, mechanics, and principles we use to reduce printing, discomfort, and fatigue when carrying a concealed firearm. During this course, we might refer to specific brands of holster or brands of holster accessory attachments and modifications, however the principles are universal and can generally applied to any holster or any person in order to improve concealment.

Some of the material in the course may be familiar to you. Many experienced carriers may have learned some of these principles, stumbled into them, or intuited them through years of trial and error or self-education. Placing these principles in the context of Concealment Mechanics with some unified language will help reduce your personal trial and error, improve your self-diagnosis and ability to predict success with potential new equipment, and also help communicate with your peers and students who may be relying on you for advice and assistance.

## Why Conceal?

Assuming you've already made the choice to take on the responsibility of owning and carrying a firearm, why choose concealed carry? (Aside, obviously, from instances where concealment is a legal obligation.) What advantages does effective concealment buy you, a regular person, in terms of carrying a gun?

One advantage of effective concealment is that it influences **target selection**. The old trope, "nobody notices you printing," is really only true insofar as nobody WHO MATTERS notices you printing. But we're not carrying a gun because of the majority of people who *don't* notice or care about your printing firearm. The people who notice are the ones who matter. They're used to spotting guns on people, to spotting plain-clothes cops, to selecting victims, and to initiating violent attacks based on advantages they perceive and cost/benefit evaluations of those attacks. The kind of person who is capable of noticing your gun and deciding to victimize you anyway is someone who has confidence that they can win the fight.

The second main advantage of concealed carry: **the element of surprise**. A fight with someone who knows that we have a gun is, by default, a fight over the gun. If the gun is hidden, then we can choose the timing of the deployment of the gun to our maximum advantage. If our attacker is surprised by the presence of a firearm, then we are causing them to react to that surprise. Time, timing, surprise, and initiative are substantial advantages in any fight. And concealment provides those advantages. Someone who has decided to attack us, with the knowledge that we're armed, arrives at the fight with those advantages.

Another advantage of concealment is that it reduces **social friction**. An undetected gun doesn't result in awkward conversations, questions from police or security, 911 calls at a little-league game or the park, being barred from various establishments, or jeopardy to employment. We're choosing the capability which comes from being armed, not the hassles.

## How Concealed is Concealed?

A good place to start a discussion about what constitutes concealment is to talk about what people *notice*. What attracts the eye and what attracts attention? People typically notice the things that are different, and often that difference can be subtle. We can look at a moving crowd of people and pick out someone with a limp or unusual gait. We notice the subtleties of gaze direction and glance. If someone looks out of place or moves out of synch, they'll be noticed. If something behaves counter to our expectations, it gets noticed. And, when it comes to concealment, this is important.

**Printing** is when the angular shapes of the gun show through your clothing. Now, at a glance, it might not be obviously gun shaped. However, that glance is important. The difference between the angular shapes of the gun compared to the natural shape of the body attracts attention. That first glance gets a second glance. "Why is this person not totally person shaped?" The curious eye lingers to see if there is anything about this person to give us a clue as to why they're not totally person-shaped. Does their clothing tell us something about their occupation? What does their posture or behavior reveal? Are there any context cues that give us a hint about what that bulge could be?

If you're printing, does your appearance make it more obvious that the bulge is a gun? If so, we call that **telling**. That mystery bulge isn't a mystery when you're wearing tactical pants and a gun-branded t-shirt. Your gun might be totally covered up, but all the other hints tell the world the bulge is a gun.

When we refer to a gun as **concealed**, we mean that the angles of the gun are not noticeable through the clothing. "Concealed" represents a level of hidden that requires **physical contact** to detect the gun. Even in the event that the clothing becomes disturbed enough that mild printing occurs, an observer would have to **stare deliberately**, obviously, and for a **socially unacceptable** amount of time to discern that it might be a gun under the clothing, and they must combine that with other context cues you're giving them (like "gun people" clothing, for instance). In short, "concealed" means that someone intent on detecting the gun would have to violate a number of social norms surrounding proximity, personal space, touch, or gaze in order to detect the presence of a gun. That is, their attempt to detect a gun becomes more obvious than the pistol itself. One of the advantages (among many) of appendix carry is that positioning the gun on the front of the body ensures that anyone intent on discovering the pistol will be in our field of vision. And this increases *their* risk of being detected.



**There are three main features that make a holster safe.** They are trigger protection, retention, and safe re-holstering. If a holster fails at any one of these things, don't use it. These are the bare minimum requirements for a safe holster. And as a rule of thumb, the holsters which fail to meet these criteria also happen to conceal really poorly.

The first thing the holster needs to do is **fully cover the trigger guard** with material rigid enough that the trigger cannot be manipulated from the outside. Fabric, elastic, and soft pouches do not provide sufficient trigger protection.

The second thing the holster needs to do is **retain the gun in the holster**, and the holster to your body. If the gun can fall out of the holster or if holster can shift around or fall off your body, not only is that a major safety issue, the chances are high that it also provides inadequate concealment and comfort.



You need to be able to go through a **full range of motion** with your gun securely attached to you, because you never know what kind of emergency might occur while you're carrying.

The holster must allow you to **re-holster without sweeping any part of your body** with the muzzle at any time. "Sweeping" or "muzzling" means when the gun points at you. If you imagine a laser pointer on the end of your barrel, if that laser touches any part of your body, you have swept yourself, and that's dangerous. One of the most important rules of gun safety is that you never point a gun at anything you're not willing to destroy. So we don't sweep our body at any point, and especially during re-holstering, which is statistically when people are most likely to shoot themselves.

When it comes to holsters, the best way to ensure safe re-holstering is to choose a holster with a **rigid mouth**. If the holster collapses when you draw the gun, then you would have to hold it open with your fingers to get the gun back in. We also see people using the muzzle of the gun to pry their holster open. Both of these actions result in the gun pointed at some part of your own body and are **EXTREMELY** unsafe.

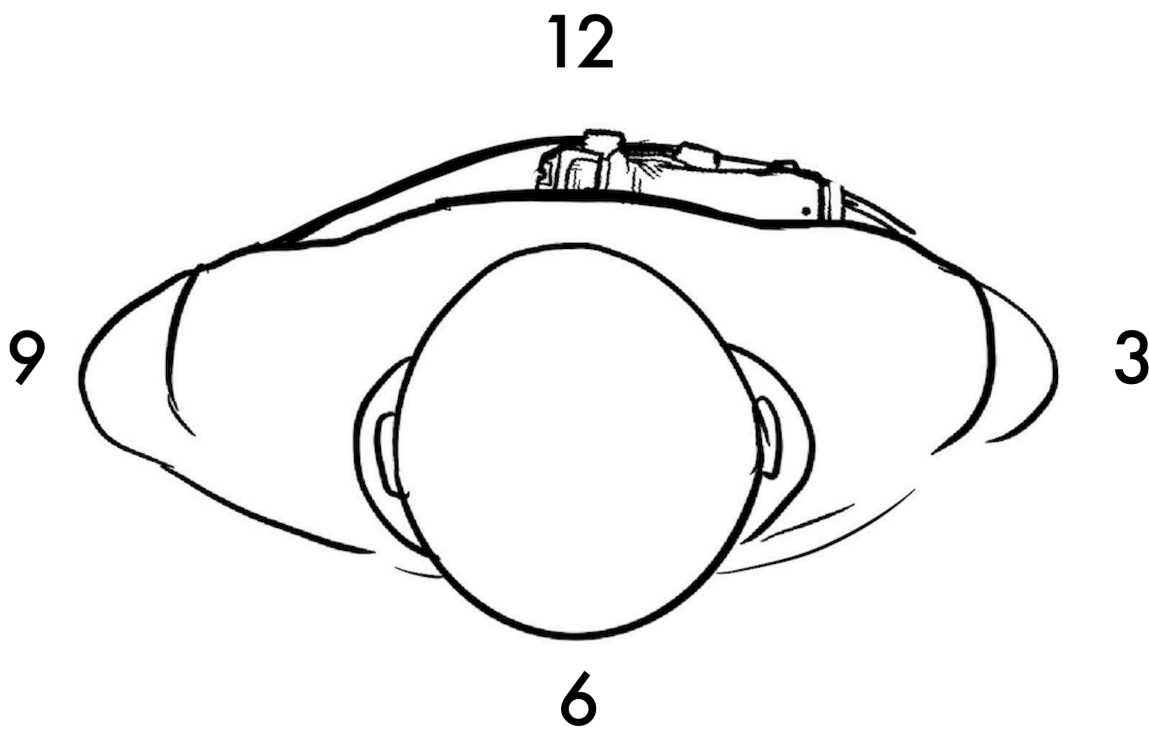


## Carry Positions

For the purposes of this class, we're going to be discussing the most practical and popular method of carrying a concealed firearm: **Inside the Waistband.**

Inside the waistband (IWB) involves positioning the holster between your pants and the body, inside the waistband of the pants.

The two most prevalent positions of IWB carry are "behind the hip" and "appendix carry." Appendix carry is also called "Appendix Inside the Waistband," or "AIWB." The position of the gun relative to the body is often referred to using clock face positions as reference. For example "12:00" would be exactly front and center. The peaks of your hips would be 9:00 and 3:00, respectively.



"Behind the hip," also known as "strong side" would be anywhere from 3:00 to 5:00 (for a right-handed carrier) or 9:00 to 7:00 for a left handed carrier.

"Appendix" positions the gun generally between 2:30 and 12:00 for a right handed carrier, and 10:30 and 12:00 for a left handed carrier.

We'll be omitting 6:00 or "small of back" carry in this class, as it provides the least efficient access to the pistol and presents substantial safety risks to the spine. We do not recommend this practice.

# The 3 Principles to Concealing a Gun

1) Finding your  
'sweet spot'

2) Getting  
enough grip  
rotation

3) Getting  
enough grip  
tuck

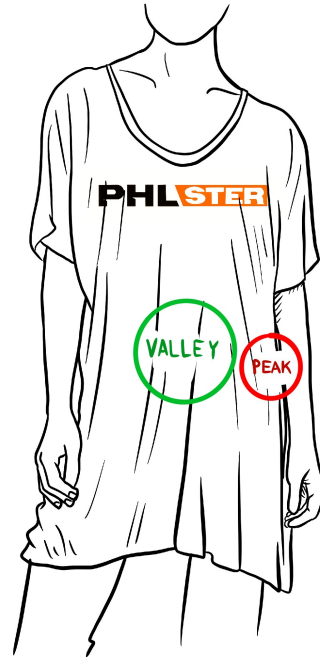


# 'Peaks' versus 'Valleys'

'Peaks' are parts of your body that stick out further than others- generally that hug your clothing. For example, for larger individuals, it could be at the 12 o'clock position- whereas for smaller individuals it could be closer to 3 o'clock.

'Valleys' are areas where there is space between the body and the clothing.

Knowing where your peaks and valleys are is vital in finding where to place your gun. Peaks should be avoided, valleys are the best place to conceal a weapon.



For example, on this woman with a baggy shirt, her sharper hips are the 'peaks' and the folds in clothing over her abdomen are the 'valleys'. So, towards the front of her outfit- 12 o'clock- is ideal for her concealed carry.

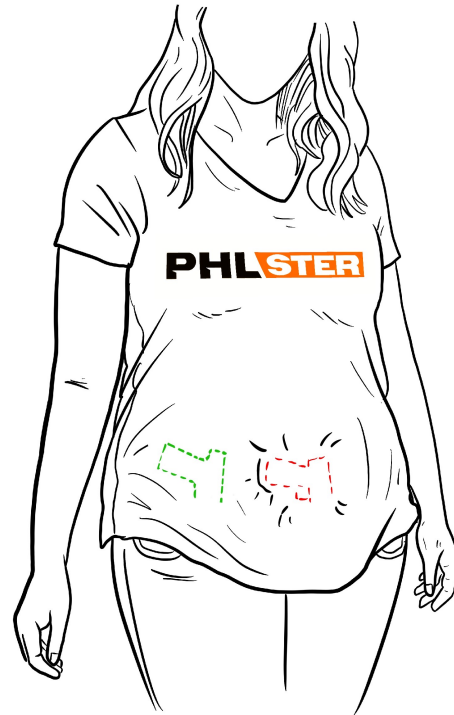
The best place to start when selecting the ideal concealment position for your pistol is to avoid the **peaks** of your body. Those peaks will be different for everyone, and will depend on your body composition.

Generally speaking, most people are widest along the 9:00-3:00 dimension. Positioning a pistol directly at 3:00 will cause it to sit directly on that peak, making the pistol itself the widest point of the body. It also causes the grip to protrude away from the peak, and it positions the gun outside of the silhouette of the clothing and body. You'll notice that most people position the pistol off of that peak, towards 4:00, where the gun lays flatter against the body and is enveloped inside the silhouette.

# Finding the 'sweet spot'

The torso will peak along the vertical and horizontal planes. Stacking the gun directly on that peak will generally increase obvious printing. The flatter your abdomen, the more you can position the gun at the 12:00 and "equator" of your abdomen.

If the intersection of 12:00 and the "equator" of your belly is the "highest" point, then experiment with moving the gun off center towards 1:00 or 2:00.



For plus sized individuals, the valley and peaks may be reversed- a pistol may print at 12 o'clock but be far harder to see at 1 or 2 o'clock

Many of us have a peak directly at 12:00, also. If you're attempting to carry AIWB and have a substantial midline peak, move the holster off-center towards 1:00. People who have no substantial midline peak might be inclined to carry closer to 12:00, since it presents itself as a position in which the gun can fall fully within the body silhouette.

Also, take into consideration your abdominal equator. For many of us, our belt rides somewhat below that imaginary line. With the holster attached to our belt, this can wind up in a circumstance in which our abdomen pushes the top of the gun outward and the muzzle inward. Before adding a wedge, raise your pants ride height to a point where the gun is more perpendicular to the floor and less inclined to tip outward over the belt. When your gun is off-peak and at the appropriate height, perform the "poke and check" method to see what concealment features you'll need to keep the gun ideally positioned.

# Checking for Consistency

Remember, you are constantly moving and your clothing will move with you.

Your clothing will tighten and loosen based on what you do- for example, if you bend forward while carrying small of back, you are almost guaranteed to print or expose.



Remember-  
Standing mirrors are wasted on the vain.  
Use one to check to see if you print in any other positions! Even a quick video on your phone can help self diagnose.

As a first step in self-diagnosis, check and see if there's any part of the gun above the belt which isn't fully contacting your body. Generally speaking, if there's a gap between the gun and your body, you're going to experience printing in that location.

Some of that can be managed with adjusting a wing or wedge feature on the holster.

The easiest test is a quick **“poke and check.”** Simply poke on the location which is causing printing with your finger and see if you can get the gun to fully hide under your clothing, without inducing any other part of the gun to print (equal and opposite reactions). Notice how the gun rotated and tilted in response to your poking. If you felt the gun lift below the belt line, that might mean adding a wedge would cause the gun to remain in that ideal position. Maybe you noticed that your belt moved a little bit, which would indicate that you might need to adjust or install a wing on the holster (or obtain a holster which includes that feature).

Maybe the poke and check didn't not yield positive results. If the printing doesn't go away, if another part of the gun prints instead, or if the poke and check results in significant discomfort or potentially diminished access, you might not have selected the ideal position on your waistline for concealing the gun.

## Tools for reducing printing:

Just like a red dot optic or an aftermarket trigger for your pistol, bolting on parts to your holster won't do all the work for you. They're important tools for accessing the best potential performance, but you still need to know how to use them.

To reduce printing, we need to apply pressure and leverage to the holstered firearm such that the angular inorganic shapes of the gun don't extend past the normal human-shaped silhouette of your body or clothing.

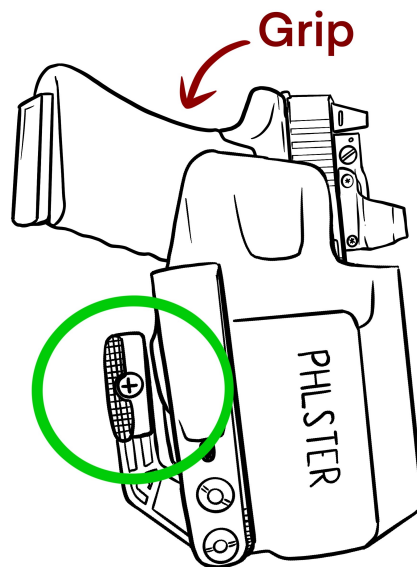
We apply pressure to the holstered gun using the belt. The belt is going to press on the face of the holster. But the gun has its own agenda, too. Depending on how much of the mass is above the belt, depending on where the gun is positioned on your body, and depending on how you're shaped, the gun might be inclined to tip out away from your body, causing the muzzle to poke you below the belt line, and for the grip and slide to print.

## Getting enough grip rotation

A common problem in concealed carry is printing of the grip of the pistol.

This is caused by the gun not conforming to the body, and the grip of the gun extending past the silhouette of the clothing.

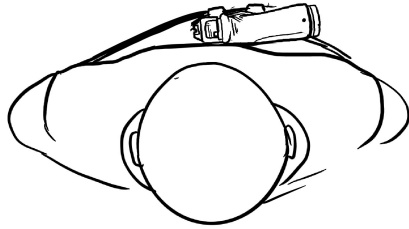
Some holsters will use a 'claw' or 'wing' which uses belt pressure and leverage to pivot the grip until it makes full contact with your body, keeping the grip inside the silhouette of your clothes.



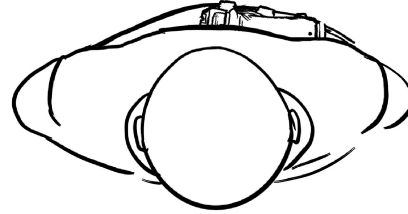
The two main tools for reducing printing are a pair of humanity's oldest tools: the lever and the wedge.

In the context of a holster, the lever takes the form of a **concealment "wing"** or "claw." This piece extends the effective width of the holster past the trigger guard, and increases the effective height of the holster in that location as well. This directs the belt pressure to lever the grip of the gun inward to your body, bringing it inside of the silhouette of your body and clothing. Sometimes this feature is molded in to the holster shell and sometimes it's bolted on.

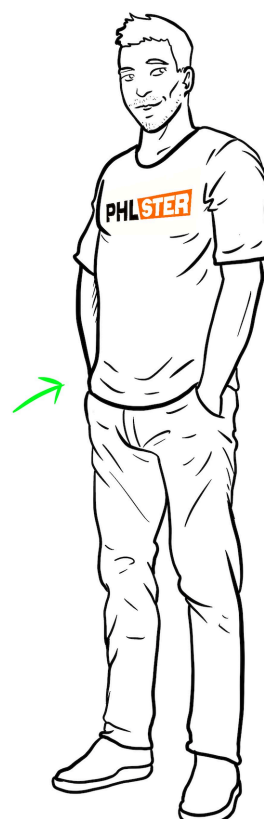
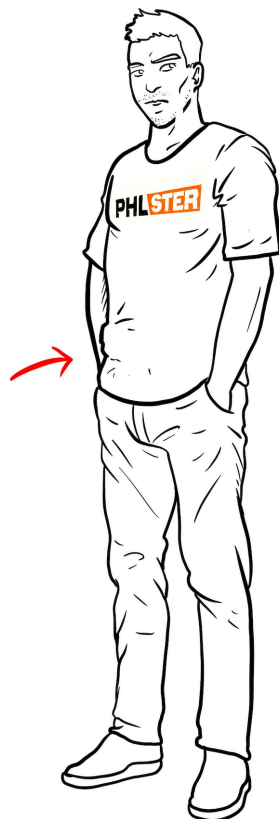
# Getting enough grip rotation (con't)



Without a wing, the grip can protrude from the shirt line and print against clothing, as seen here.



A holster with a wing or a claw will use belt pressure to pivot the grip into the profile of your body.

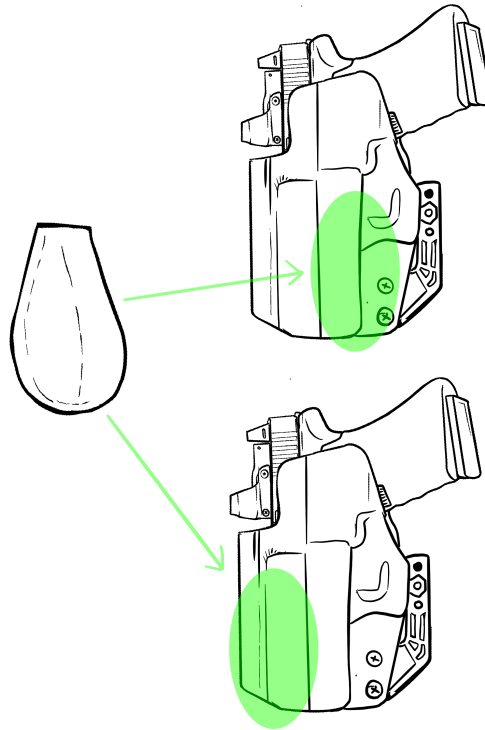




## Getting Enough Grip Tuck (con't)

Placing the wedge on the inner side of the holster, behind the claw, will tip the top of the slide and the rear sight in closer to the body.

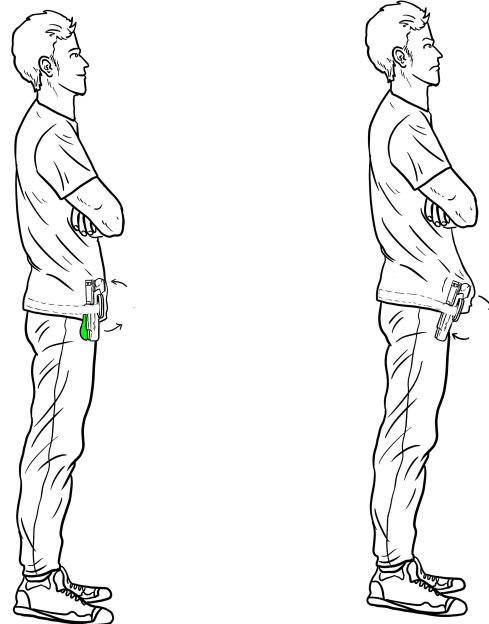
Placing the wedge on the opposite side- on the slide side of the holster- will push the top of the slide and the grip of the gun closer into the body.



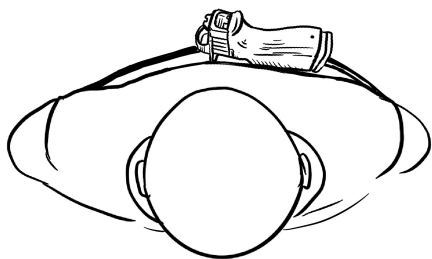
**The wedge** helps prevent belt tip-over. When placed between the muzzle end of the holster and your body, it acts as a fulcrum to direct the belt pressure to tilt the above-belt portion of the gun into the body. Some wedges are molded into the holster. Others are made of foam and velcro on to the holster. Some are rubber and bolt on to the shell. You can also sculpt your own wedge to fit your specific anatomy.

These tools are not going to be effective without a belt. We're harnessing the the pressure of the belt to activate these features. Relying merely on the fabric (or even elastic) waistband of your pants will fail to sufficiently activate these tools. A wing will wind up pushing your pants outward, more than driving the grip of the gun inward.

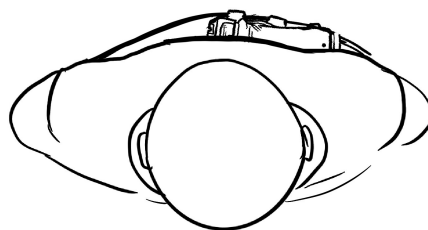
## How the Wedge Works



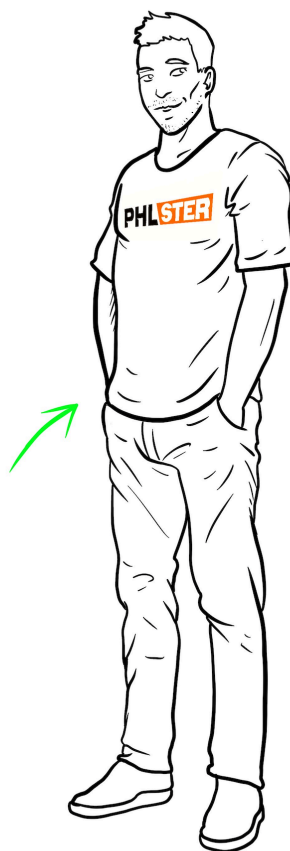
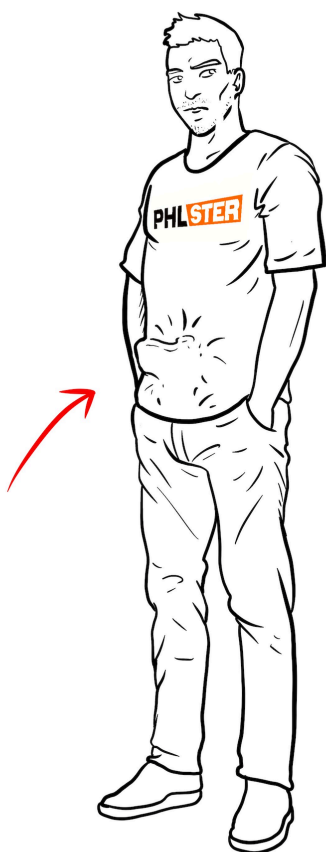
# Getting enough grip tuck (con't)



A top-heavy pistol might tip outward away from the body, causing printing and discomfort.

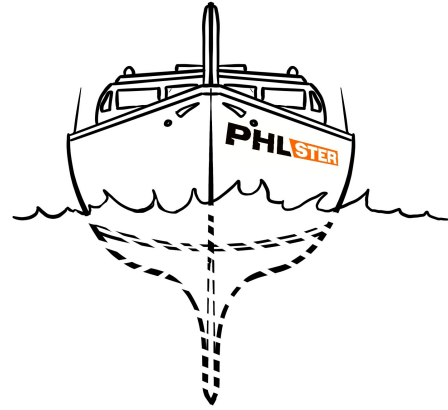
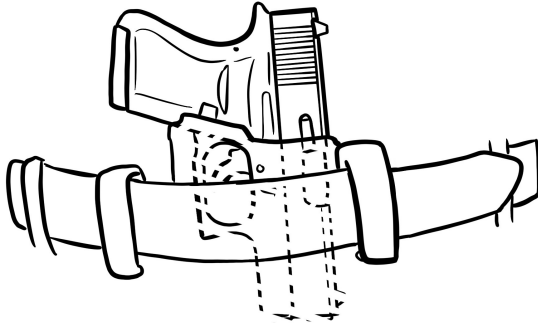


Using a longer holster or a wedge will counteract tilt, and tuck the gun into your body.



# Why do small guns print and cause discomfort?

They're small, shouldn't they conceal better and be more comfortable?



Think of the belt line like the surface of the ocean. We'll call it the water line.

Without a keel, a ship might tip over. The mass and length of the ship below the waterline helps keep it stable and balanced.

The same principle applies to concealed firearms. Look at this Glock 26 pictured here. With a full magazine, almost all of the mass of the gun is above the belt. With nothing to balance that out, the grip will tilt away from the body, causing printing, and drive the muzzle inward, causing discomfort.

A 'keel' can be added to the holster to help stabilize the gun- for example, here, a longer Glock 19 or 17 holster can be used. The extra muzzle length, combined with a tight belt, will help balance the top heavy gun.

Small guns, on their own, may seem like a convenient solution for concealed carry. And, absolutely, things like grip size and weight make a big difference in terms of grip printing and overall carry fatigue. However, small guns can wind up causing acute pressure points. In addition to balancing the gun above the belt, the longer **"keel"** of the extra holster length can spread the pressure over a wider area and reduce the hot-spot of focused pressure from the small pistol. The balancing effect of the "keel," plus the "snow-shoe" effect of more holster surface area can transform a small gun from painful, to a light-weight and comfortable carry option.

## The 'Keel' Principle (part 2)

Fig. 1: The large holster acts as a 'keel' and balances the gun at the waistline.



Fig. 2: The small holster lacks balance and the gun tips outwards, causing discomfort and printing.



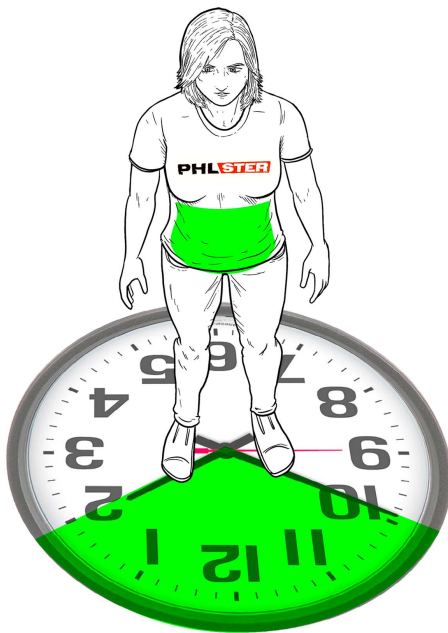
**Take these two gentlemen.**

**One is using a longer holster to balance his compact pistol, the other is carrying his pistol in a small holster.**

## Choosing a Pistol for Concealed Carry

Picking out a gun for every day concealed carry can be a bit of a guessing game. We consider factors like reliability, caliber, capacity, and hand-fit, but it's also important to realize how much time the gun will spend in the holster and on the body compared to anything else we do with it. Pistols will be branded as "compact" or "subcompact" and advertised as great options for concealed carry, or broadly referred to and recommended as good choices for concealed carry by peers or experts. However, a gun which is slightly too large can result in endless tweaking, fidgeting, adjusting, discomfort, and ultimately opting not to carry it at all. How can you tell, in advance, if any given pistol is going to be a good choice for YOU?

We don't just buy shoes until we find a pair that's our size. We know the size in advance and shop for the size we need. We can do that with pistols, too.



### STEP 1: Measure your body

Find the front peaks of your pelvis at the 10:00 and 2:00 position. Measure that span with a tape measure contacting your body.



### STEP 2: Measure the pistol

Measure from the bottom of the magazine to the top of the slide. Include the slide-mounted optic if present. Dimensions are also available online at <https://www.handgunhero.com>

### STEP 3: Math

Divide the measurement of the gun by the measurement of your body to find the percentage of front-span which the gun will occupy. The larger the number, the more work, adjustment, and commitment it's going to take to carry that particular pistol.

Most people comfortably tolerate a pistol which takes up less than 40% of the front span of their body, without having to make major changes in wardrobe to conceal the gun, and without finding that they have to make constant adjustments throughout the day, like when they sit or drive. The point at which it becomes “easy” for most people is 35%. At that size, individual factors like body composition and build type become less relevant and you have more leeway when it comes to fitting the gun in your “sweet spot.”

Above 45% is where the work starts to get more difficult. At that point, we might need to choose our wardrobe more carefully, spend more time tweaking the concealment mechanics of the holster, and be willing to live with the conscious, continuous felt presence of the pistol. We will almost certainly have to adjust it throughout the day, and be prepared for the pistol to occasionally be in the way of basic movements, like sitting, squatting, or bending. It’s also the point at which a certain amount of printing starts to become inevitable, simply due to how much of the available clothing envelope the gun will occupy. 45% is a lot of the front of the body for a pistol to occupy, so we’d better love everything else about that particular gun in order to tolerate the concessions we’ll make to carry it.

## **Additional Resources:**

**Free download of all the images used in this booklet:**

<https://www.phlsterholsters.com/the-basics-of-concealment-mechanics/>

### **Concealment Mechanics Playlist**

[https://youtube.com/playlist?list=PLrjZ\\_jHF\\_Spku\\_RJvSU5I7kr8rE96OftL](https://youtube.com/playlist?list=PLrjZ_jHF_Spku_RJvSU5I7kr8rE96OftL)

**“How to Concealed Carry in Scrubs.”** Sarah’s video series on applying these Concealment Mechanics in challenging wardrobe:

[https://youtube.com/playlist?list=PLrjZ\\_jHF\\_SpmM9iy8BbdATQXxJRR61P-i](https://youtube.com/playlist?list=PLrjZ_jHF_SpmM9iy8BbdATQXxJRR61P-i)

### **Concealment Principles Lecture:**

<https://youtu.be/m58IBC9SCGE>

**PHLster Concealment Workshop** Facebook Group.