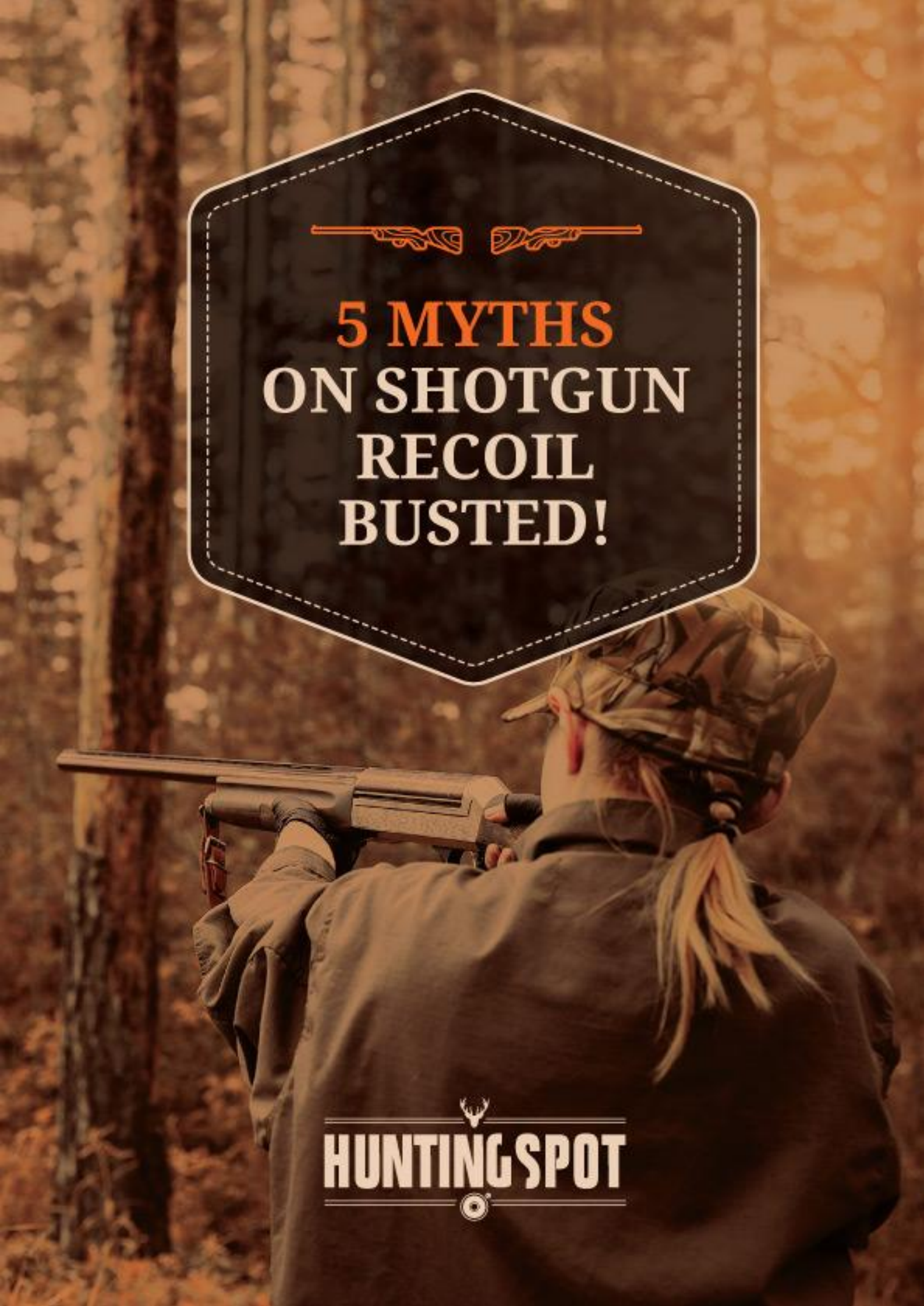
5 MYTHS
ON SHOTGUN
RECOIL
BUSTED!
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5 Myths on Shotgun Recoil Busted!

Struggling with your shotgun recoil?

In this guide we are going to bust some of the most famous myths about recoil.

Why we decided to do this?

Because it may help you to solve your shotgun recoil issues!

Let's start from N°1

1) Recoil and felt recoil are the same thing

In a physical sense **recoil is a consequence of the third law of dynamics**, which states that to every action there is an equal and opposite reaction.

In the case of a weapon, the pressure of the gas generated by the ignition of the gunpowder pushes the bullet along the barrel until it exits the muzzle.

This, in turn, creates an equal and opposite force towards the weapon's breech. This force or energy is known as recoil.

Felt recoil is something else entirely.

While the recoil energy is fixed and equal to the kinetic energy generated by the acceleration of the shot due to the expanding gas, it is instead possible to affect the sensation of recoil by altering its distribution and how it is managed by the system comprised of the shooter, the shotgun, and the shotshells.

1) Recoil and felt recoil are the same thing

Therefore, we can say that **felt recoil refers to how shooters literally "perceive the energy"** that is discharged to their hand, shoulder, and body during the recoil of a weapon.

The implication is that recoil energy can be managed in different ways by modifying the shooter's perceptions.

2) A 20-gauge shotgun always recoils less than a 12-gauge shotgun

The first thing to know is that the greater the weight of a firearm, the smaller its recoil will be.

This is why it is not the gauge, but **the mass ratio of the weapon/recoil energy**, that determines the intensity of the recoil.

2) A 20 gauge shotgun always recoils less than a 12 gauge shotgun

In fact, 20 gauge shotguns are smaller and lighter than 12 gauge shotguns, because they shoot less lead (about 25% less).

Obviously, **if one does not have the right shotshells**, the recoil felt by the shooter may increase.

Skeet shooting shotguns typically weigh more than hunting shotguns because they are specifically designed to shoot a large number of shots a day, while **lightweight hunting shotguns are comfortable to be transported** for much longer distances and, in any case, are shot less often.

Therefore, we can say that a heavy 12 gauge shotgun will recoil less than a lightweight 20 gauge shotgun, if both shoot **shotshells that generate equal kinetic energy.**

3) Felt recoil does not depend on the shooting position

You would be surprised to know how many sport shooters insist on changing stocks, cartridges, and even the shotgun itself, to reduce felt recoil.

There are even special **"tubes partially filled with mercury"** available on the market that are inserted in the shotgun stock to absorb the energy of recoil.

When shooting, the mercury flows forward and hits the front end of the tube in which it is contained, generating a forward force on the weapon which counteracts and reduces the backward force of the recoil.

All this can definitely be of help, but it will not count for anything if **we feel too much recoil due to our shooting position.**

3) Felt recoil does not depend on the shooting position

In fact, as you have already seen, **the energy of recoil is managed by a complex system** consisting of the cartridges (the shot and speed), the shotgun (weight), as well as the shooter.

An improper grip of the shotgun, a badly held weapon that is not pressed tightly against the shoulder, or **a shotgun that is not shaped or calibrated specifically for you**, can all dramatically increase felt recoil.

3) Felt recoil does not depend on the shooting position

The solution is therefore **to get help from a shooting instructor** and an expert stock maker who will be able to optimize the shotgun's position and your grip, adapting them to you.

Only then will it be possible to consider other solutions to reduce felt recoil.

4) To reduce recoil, you need to use lower burn rate gunpowders

This myth is deeply ingrained, but unfortunately it is not valid and above all **is inconsistent with the purpose for which gunpowders with faster or slower burn rates are used** in hunting and shooting cartridges.

Gunpowder selection is one of the first fundamental steps in producing or filling a cartridge. The burn rate must be calibrated according to the weight of the shot with which the cartridge is to be filled and, ultimately, its purpose.

A gunpowder is not chosen only to decrease recoil, but to achieve an optimum balance of the cartridge in relation to the weight of the shot.

Especially in the case of skeet shooting, it is imperative to ensure set shot speeds that can achieve uniform and compact shot patterns.

5) Shotshells with lower shot weights recoil less

This is a deeply entrenched belief among shooters, who often suggest changing to a lower shot weight in case of excessive recoil. For example, from 28 g to 24 g for the main skeet shooting disciplines.

This reasoning is valid, but an error is made **when you focus exclusively on shot weight without also considering speed.** In fact, the kinetic energy generated during shooting depends not only on the shot weight, but also on the speed of the pellets.

Therefore, it is not enough to take only shot weight into consideration; instead, **you need to look for the best balance between shot weight and speed.**

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