

# MORPHEUS



A product of DJ Belanger Innovations, LLC

A 100% Veteran Owned Business

Anatomy of a perfect flight, impact and wound channel creation:

Morpheus Mechanical Broadhead functionality.

The Morpheus Mechanical Broadhead is unique among mechanical broadheads for several reasons. These will become apparent as it functions from release through wound channel creation.

Pre-release has the blades of the broadhead held closed by the tension of the internal spring.



Immediately after release the blades open fully and quickly close as the arrow/broadhead heads downrange. This initial opening of the blades gives initial slight stabilization which is a function present in Morpheus alone.



The broadhead blades are closed at impact, but open fully to their 1.65" diameter cutting radius and create an entrance wound.

As the broadhead begins penetrating through tissue the resistance of the flesh on the blades begins to close the blades as the wound channel is being created. Bear in mind that the blades are still lethal even when fully closed. This reduces the resistance allowing for a deeper penetrating wound. This design feature allows for the best use of the kinetic energy that is remaining in the arrow/broadhead combination in that it is more likely to create an exit wound than if the blades were fully deployed, like all other broadheads.

This optimal use of the remaining kinetic energy to increase the possibility of an exit wound is, in part, what I have dubbed, "exsanguination technology".

The additional weight over the conventional 100 grain "paradigm" also assists with deeper penetration while bringing nothing negative to the outcome of the shot.

Having additional mass in the projectile helps to create the perfect combination of lethality, stability and penetration.

A through and through shot is always preferred and Morpheus is designed to accomplish this, but if there is a shot which does not penetrate through and through the next design feature may assist in exsanguination. If the projectile stops before penetrating through the target game the blades will close once again. This allows the possibility of the projectile working its way back out of the wound enhancing the "exsanguination" or outflowing of blood from the target game. This feature is part of the "exsanguination" technology built into the Morpheus Mechanical Broadhead. No other broadhead in existence has this unique feature.

A design choice was selected to use the available kinetic energy from the broadhead/arrow combination to create a deeper penetrating projectile over one which creates a consistent sized wound channel. Having two wounds, entrance and exit, is far more advantageous to finding shot game as the blood trail will be easier to follow.

The added mass of Morpheus is a design feature to break through the conventional thinking that a 100 grain broadhead is the ideal. More mass means:

1. Deeper penetrations vis a vis 100 grain broadhead/arrow combinations.
2. Less deflection from wind and tree branch hits during flight.
3. Higher likelihood of a through and through shot optimizing outward blood flow or "Exsanguination".

Perceived negatives:

1. Slower flight may mean a negative outcome due to animal reaction time. In reality, this is a myth as there is no appreciable difference in animal reaction time compared to a 100-grain tip.
2. Higher weights will mean I can't take a longer shot due to arrow drop. Again, this is untrue unless you are taking shots that are way outside of your limits and should not be taken in the first place. (Morpheus inventor and fellow bow hunter David J. Belanger believes in only taking a shot that is within your skillset. Don't ever risk injuring an animal by shooting outside of these limits that you have thoroughly tested in practice. For most people shooting an arrow at an animal farther than 40 yards away is too risky. Hone your skills so that you can get within this lethal zone and take the shot you know will harvest your target game in an ethical manner.