# Scalpel Grips

## Video Transcript

PENCIL GRIP

In the pencil grip, the scalpel is grasped close to the blade between the tips of the thumb and index finger, with the remaining handle resting on the web of the thumb, much like grasping a pencil. In this grip, the motion comes predominately from the thumb and index finger, allowing for precise cutting of tissue. To increase the accuracy of the fine cutting, you can also steady your hand by resting the ring and little fingers on the patient as you cut. The pencil grip can also be "backhanded" by reversing the direction of the blade without changing the upper arm position.

Grasping the scalpel handle like a pencil allows short, fine movements, using the muscles of the hand, with less contribution from muscles of the forearm. The pencil grip is therefore most useful for making small, precise incisions.

*Limitations*

In the pencil grip, the blade edge is held at a 30– to 40–degree angle to the tissue. In comparison to the other scalpel grips, this greater angle diminishes the cutting edge contact, limiting both depth and direction control. Thus, the pencil grip is not ideal for creating long, straight skin incisions.

FINGERTIP GRIP

In the fingertip grip, the scalpel is held between the thumb and middle finger, while the index finger is placed on the spine of the scalpel blade to apply downward pressure, much like grasping a butter knife. This grip is used primarily for making long skin incisions, using arm motion, rather than using the finger motion associated with the pencil grip.

*Advantages*

The chief advantages of the fingertip grip are that it provides good depth and direction control. Because this grip maximizes the length of blade that comes into contact with the tissue, any changes in blade pressure are distributed over a greater length. This delivers less pressure to each increment of tissue and allows for greater security of depth control. Additionally, the greater the length of tissue in contact with the scalpel, the more the walls of the incision resist minute or sudden changes in direction, allowing for smoother, straighter incisions. The combined advantages of both depth and direction control make the fingertip grip well suited to creating long incisions.

*Limitations*

The fingertip grip does not allow for precise blade cuts, so it is not used when delicate, precise scalpel cuts are required, such as in ophthalmic and vascular procedures.

PALM GRIP

In the palm grip, the middle, ring, and little fingers are wrapped around the scalpel handle, with the thumb anchoring the handle from the opposite side. The index finger is rested on top of the scalpel handle and force is applied to the handle with forearm pressure. The wrist is held straight.

*Advantages*

The palm grip is the strongest, most secure way to grasp the scalpel handle, but it is RARELY indicated for most veterinary surgery applications. Its main surgical use is when great pressure is needed to cut through very dense tissue. The most common use for the palm grip is to cut open cadavers during a necropsy examination.

*Limitations*

In the palm grip, the grasp is held well away from the cutting blade edge and forearm pressure is used to exert force, resulting in little control over blade pressure. This lack of pressure control means that the palm grip should NOT be used for surgeries that require accuracy and control!