

Sim*Suture Ultimate

Training Guide

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...unlocking surgical excellence

Sim*Vivo Suture Ultimate

Suggested Exercises

Welcome to Sim*Vivo's newest learning system, designed to provide you with extensive opportunities to develop and refine your suturing skills using simple interrupted, running, vertical mattress, and subcuticular techniques. While these skills are most commonly applied to the closure of skin wounds, your future success in handling other tissues—including fascia, intestine, bowel, and blood vessels—will depend upon the fundamental principles and technical abilities you develop through these exercises.

This guidebook will introduce you to a variety of suturing techniques and provide a structured practice plan to support your learning process. Our goal is that, when you are given the opportunity to close a wound under supervision in the operating room or emergency department, you will approach the task with both confidence and an understanding of the principles of proper wound closure.

As with all Sim*Vivo learning systems, we believe that the foundation of technical skill development begins with interactive instruction from experienced mentors. Initial hands-on training under direct supervision is essential to acquiring proper technique, and your mentor should be confident in your abilities before you progress to independent practice. Practicing a skill incorrectly can reinforce poor habits, so establishing proper technique from the outset is critical to your long-term success.

Your training materials and supplies for this module are designed to be completely portable, allowing you to practice in a variety of settings, including the simulation laboratory, at home, in the call room, or anywhere you find comfortable and conducive to focused practice. The proposed schedule is intentionally flexible, enabling you to progress at a pace that accommodates your individual learning style and schedule.

The exercises outlined in this guidebook are designed to provide sufficient repetition to help you develop proficiency in the suturing techniques being taught. After completing each exercise, place a checkmark in the designated box to document your progress and track completion of the training sequence.

We strongly recommend that, approximately halfway through the exercise series, you return to the simulation laboratory to meet with your mentor or instructor for an interim skills assessment. This session will help ensure you are performing each technique correctly and will allow remediation or refinement if necessary. Following this evaluation, additional practice exercises should be completed before returning for final competency verification.

Once testing has been successfully completed, you should request formal documentation of your achievement for inclusion in your educational portfolio. In today's environment of increasing accountability and scrutiny in medical practice, documenting procedural proficiency is an important component of professional development and credentialing.

Finally, your completed suture board will serve as a visible record of your effort, practice, and progress throughout the course—an enduring reminder of the technical skills you have developed through deliberate training and repetition.

One final note regarding safety: you may choose to use these instruments and supplies in locations where non-medical friends, family members, or children could potentially have access to them. Please remember that several of these instruments are sharp and may cause injury if they are not properly handled, secured, and stored. Always exercise appropriate caution when using and transporting this equipment. -----Used needles should be secured by driving them completely into the foam practice board, with the remaining suture material trimmed away appropriately. Proper disposal and storage of sharps are essential components of safe practice habits.

In addition, none of the instruments or supplies included in this training system are sterile, nor are they certified for use on humans or animals. These materials are intended solely for educational and simulation purposes.

End of disclaimer—but an important one nonetheless.

Let's get started by reviewing some wound closure concepts.

Successful wound closure requires more skill than simply placing stitches. Proper suturing technique promotes healing, minimizes tissue trauma, reduces the risk of infection, and helps achieve the best possible cosmetic and functional result. Before practicing individual suturing methods, it is important to understand several fundamental principles that apply to all wound closure techniques.

Respect for Tissue

Tissues should always be handled gently and with precision. Excessive force with instruments or unnecessary manipulation can damage tissue, compromise blood supply, and impair healing. Needle holders, forceps, and scissors should be used gently and only for their intended purpose.

Accurate Wound Edge Approximation

The primary goal of suturing is to accurately approximate the wound edges without excessive tension. Skin edges should be aligned evenly to promote healing and minimize scar formation. Sutures tied too tightly may strangulate tissue and impair blood flow, while those tied too loosely may fail to maintain closure.

Proper Needle Placement

Consistent needle placement is essential for creating a secure and cosmetically acceptable closure. Sutures should generally enter and exit the tissue at equal distances from the wound edge and at symmetrical depths. Uniform spacing between sutures distributes tension evenly across the wound.

Instrument Handling

Developing efficient instrument handling skills is a critical component of suturing proficiency. Proper loading of the needle into the needle holder, controlled wrist movement, and smooth arcing of needle passage through tissue will improve both speed and precision. During your practice sessions, focus on developing deliberate and reproducible movements rather than speed alone. Accuracy and consistency should always precede efficiency.

Knot Security

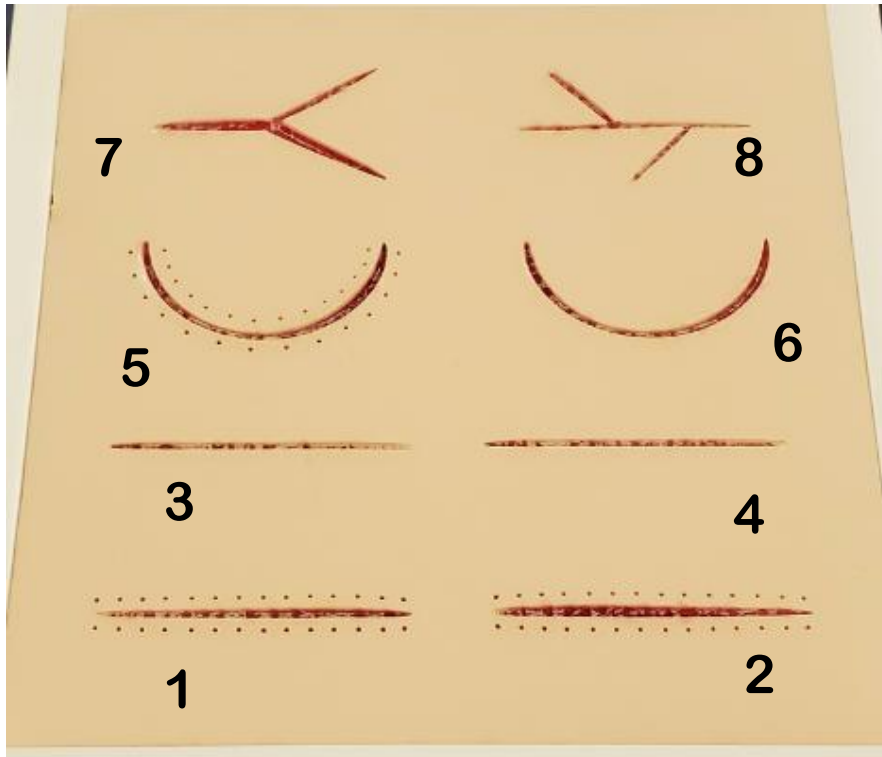
Secure knot tying is essential for maintaining wound closure. Knots should be firm enough to maintain approximation of the tissue without causing constriction or tissue injury. Repetition and practice are necessary to develop a reliable knot-tying technique using both instrument and hand-tied methods.

Practice and Repetition

Like all procedural skills, suturing proficiency develops through deliberate and repeated practice. Initial learning should focus on proper technique under supervision. As your skills improve, repetition will help build confidence, consistency, and efficiency. The exercises outlined in this guidebook are intended to provide a progressive learning experience that reinforces proper technique and develops the muscle memory required for clinical practice.

Content of the learning system and review of basic surgical skills

Below is a picture of the Sim*Suture Ultimate suture board with the areas for practice noted. Some of the lines will be used as a guide for closing wounds and incisions with interrupted, running, or subcuticular sutures. For reference later, the lines have been numbered.



The Sim*Skin Ultimate skin board incorporates an integrated curriculum designed to develop suturing skills in a progressive manner. Training begins with simple interrupted suture placement using guide dots that identify ideal needle entry and exit points. The learner then progresses to independent suturing along straight incision lines without guides.

Subsequent exercises introduce curved incision closure, first with guide dots and then without guides. The curriculum concludes with complex wound closure exercises that combine multiple suturing techniques and challenge the learner to apply previously acquired skills.

The learning system includes a Hegar needle holder, Adson forceps, and suture scissors. Ten packs of suture are supplied with the kit, including 3-0 nylon with 30 mm and 24 mm needles, as well as 4-0 nylon with a 19 mm needle for subcuticular closure exercises.

Basic skills

The Adson forceps are held in the non-dominant hand between the thumb and index finger in a pencil-like grip. This position provides precise control for tissue manipulation and wound edge elevation. The needle holder is held with the thumb and ring finger positioned in the instrument rings, while the index finger rests on the hinge to improve stability and provide fine control during needle placement. The suture scissors are held in the same manner as the needle holder.

Needles should be loaded into the needle holder without direct finger handling whenever possible. Using the needle holder, grasp the needle by the tip of the jaws, approximately two-thirds of the distance from the needle tip along its curvature. In most cases, the needle should be positioned at a right angle to the needle holder to provide optimal control during tissue passage. The needle holder should be locked using only the first ratchet click, providing adequate needle security while allowing easy release and repositioning during suturing.

Surgical needles are curved and are designed to follow a circular path through tissue. Proper needle passage is achieved by rotating the wrist rather than pushing the needle in a straight line. The primary motion used during suturing is wrist pronation and supination. Repeated practice of this motion develops muscle memory and improves accuracy, efficiency, and needle control. Learners are encouraged to practice these wrist movements before beginning the suturing exercises.

The exercises on the Sim*Skin Ultimate board are intended to be completed sequentially. Mastery of each exercise will facilitate progression to more advanced wound closure techniques and help develop the skills necessary for successful surgical and procedural wound closure.

Simple interrupted sutures

The lower portion of the Sim*Skin Ultimate board contains several straight incision lines marked with guide dots. These dots identify ideal needle entry and exit points and are intended to help the learner develop proper needle placement, spacing, and wound approximation.

Begin with a 3-0 nylon suture. New learners are encouraged to use the larger 30 mm needle, as its size facilitates visualization and control during the development of basic suturing skills. Once proficiency has been achieved, the learner may transition to the smaller 24 mm needle, which more closely resembles those commonly used in clinical practice.

The following technique is described for a right-handed learner and utilizes a one-pass method that is particularly effective with the Sim*Skin Ultimate board.

Select a pair of guide dots along incision #1. Using the Adson forceps in the non-dominant hand, grasp the skin edge on the far side of the incision immediately adjacent to the selected guide dot. For right-handed learners, the tissue should be grasped just to the left of the dot. Elevate the skin edge approximately 1 cm. Elevation of the tissue facilitates perpendicular needle entry and improves visualization of the needle path.

Insert the needle through the guide dot while maintaining the needle at a right angle to the tissue surface. Advance the needle by rotating the wrist and allowing the needle to follow its natural curvature. The needle should be rotated through the tissue rather than pushed in a straight line.

As the needle emerges within the wound, grasp the opposite skin edge adjacent to the corresponding guide dot and elevate it in a similar manner. Continue the needle passage until the needle exits through the target dot on the opposite side of the incision.

Advance the needle as far as possible until the needle holder abuts against the skin. Release the needle holder while maintaining tissue stabilization with the Adson forceps. Regrasp the needle tip with the needle holder and complete extraction by rotating the needle along its curved path.

Pull the suture through the wound, leaving approximately 5 cm of suture material extending from the entry side. This length will facilitate subsequent knot tying.

Proper simple interrupted sutures should enter and exit the tissue at equal distances from the wound edge and should incorporate similar amounts of tissue on each side of the incision. Consistent needle placement and tissue bites are essential for achieving optimal wound approximation and cosmetic appearance.

Practice this technique at each set of guide dots along the incision line and tie each suture as will be learned in the next section. Emphasis should be placed on accurate needle

placement, proper tissue handling, and consistent spacing. As proficiency develops, speed and efficiency will improve naturally through repetition and practice.

The Instrument Tie

After a simple interrupted suture has been placed, the wound is closed by securing the suture with an instrument tie. Successful knot tying depends on smooth, controlled movements and consistent tension rather than speed.

Begin by grasping and elevating the long end of the suture near the needle with the non-dominant hand. Bring the needle holder toward yourself and wrap the suture around the shaft of the needle holder twice. These initial two wraps form the basis of a surgeon's knot and provide additional friction that helps prevent loosening during the first throw.

Using the needle holder, grasp the free end of the suture and pull it through the loops in the same direction as before. Tighten the knot while maintaining gentle tension on both ends of the suture. The objective is to approximate the wound edges without applying excessive tension that could constrict or damage the tissue. The knot should lie flat on the skin.

For the second throw, reverse the direction of the wrap by pushing the needle holder away from yourself before looping the suture around the instrument. Alternating the direction of each throw creates a square knot and prevents twisting or slippage.

Continue placing additional throws while alternating directions with each successive wrap. Maintain consistent tension throughout the knot-tying process. In most cases, six throws provide adequate knot security when using nylon suture (three throws for silk suture).

After completing the final throw, tighten the knot securely and trim the suture ends to an appropriate length. Examine the closure to confirm that the wound edges are evenly approximated and that the knot lies flat against the skin surface. If possible, pull the knot laterally so that it does not lie on the incision.

Suture removal is accomplished by grasping the knot with the Adson forceps, cutting one leg of the suture immediately adjacent to the skin, and gently pulling the remaining segment free.

One advantage of the Sim*Skin Ultimate board is its self-healing surface. Following suture removal, gentle rubbing of the skin surface will make many of the needle holes less visible, allowing repeated practice on the same area.

Using the guide dots as reference points, place simple interrupted sutures along the entire length of the incision on line 1. Each suture should be secured with an instrument tie. A total of approximately three lengths of suture material should be required to complete the exercise. Each knot should consist of six throws to ensure adequate knot security.

Throughout the exercise, focus on developing proper wrist rotation and needle control. The needle should enter and exit the skin at approximately 90 degrees to the tissue surface and should be advanced by following its natural curved path rather than by pushing it through the tissue.

Place an interrupted suture across line 1 and complete an instrument tie. Remember – six alternating throws. Completion of this exercise should result in fourteen completed interrupted sutures.	☐
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Now, evaluate the quality of the repair. Sutures should be evenly spaced and should enter and exit the tissue at consistent distances from the wound edge. Knots should lie adjacent to, rather than directly over, the incision line. The wound edges should be well approximated without excessive tension, and the knots should appear secure and uniform.

Running Sutures

A running, or continuous, suture utilizes the same needle handling and tissue approximation principles as the simple interrupted suture. The primary difference is that a single strand of suture is used to close the entire wound, eliminating the need to tie a knot after each stitch.

Begin by placing a simple interrupted suture at one end of the incision on line 2 and secure it with an instrument tie. Leave the needle attached to the suture to continue the closure.

Place the next stitch beginning at the same guide dot used for the initial tied suture. Pass the needle obliquely through both sides of the wound so that it exits at the next guide dot on the side closest to you. Re-enter the tissue at the guide dot directly opposite the previous exit point and repeat the process along the length of the incision.

As the closure progresses, the exposed portions of the suture should remain parallel to one another. When properly performed, the closure will create the appearance of railroad tracks, with evenly spaced suture segments crossing the wound. This pattern reflects consistent needle placement and contributes to a neat, professional appearance.

Maintain gentle, uniform tension throughout the closure. The wound edges should remain evenly approximated without gaps, inversion, or excessive compression. Excessive tension may cause bunching of the tissue and compromise the cosmetic appearance of the closure.

Careful attention should be given to stitch spacing and tissue bite size. Consistent spacing between stitches and equal tissue bites on both sides of the wound are essential for achieving uniform wound approximation and an optimal cosmetic result.

Upon reaching the end of the incision, place a final stitch and secure the closure with an instrument tie. The final loop of the running suture may be used as one limb of the knot.

After completing the closure, evaluate the wound for uniform spacing, parallel suture segments, secure knots, and proper tissue approximation. Compare the appearance of the running closure with that of the simple interrupted closure performed previously.

Proficiency in both interrupted and running suturing techniques provides the learner with a broader range of wound closure options and establishes a foundation for more advanced suturing procedures.

Remove the sutures and repeat over the length of line 2.
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Now, cut out all of your carefully placed sutures with the Sim*Vivo suture scissors and proceed to the next exercise.

Closing wounds without guide dots

After demonstrating proficiency with the guide-dot exercises, proceed to line #3, which is a straight incision line without guide dots. The suturing technique remains unchanged; however, the learner must now independently determine appropriate needle entry and exit points.

The objective of this exercise is to develop judgment regarding suture placement, spacing, and tissue bite size without the assistance of visual guides. As the closure progresses, visualize where the guide dots would have been located and strive to maintain consistent spacing between sutures. Needle entry and exit points should remain equidistant from the wound edge, and tissue bites should be symmetrical on both sides of the incision.

Using the standard simple interrupted suturing technique, elevate the skin edge with the Adson forceps, pass the needle through the first side of the wound by following its natural curvature, elevate the opposite skin edge, and complete the pass through the second side. After extracting the needle, pull the suture through and secure it with an instrument tie.

Continue placing sutures along the entire length of the incision while maintaining consistent spacing, uniform tissue bites, and proper wound edge approximation. Periodically evaluate the closure as it progresses. The wound edges should be well aligned, and the sutures should be evenly distributed along the incision without excessive

tension or tissue distortion. On completion, you should have placed close to fourteen sutures.

On line #4, place a running suture to completely close the wound. All the above principles apply to this running suture.

This exercise emphasizes consistency, precision, and the development of muscle memory. The ability to accurately place sutures without visual guides is an important step toward independent wound closure. Complete closure of the entire incision before proceeding to the next exercise.

Remove the sutures on lines #3 and 4. Close line #3 with interrupted sutures and line #4 with a running suture.	☐
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Interrupted vertical mattress sutures

When closing a wound under moderate tension, the use of large, simple interrupted sutures alone may appear to be an effective method for reducing tension across the wound. While larger tissue bites can indeed approximate the wound edges, they often lead to an undesirable side effect: inversion of the skin edges. When the epidermal surfaces are rolled inward, proper dermal approximation is compromised, potentially impairing healing and leading to an unsatisfactory cosmetic outcome. Following suture removal, an inverted closure may leave a persistent central gap or depressed scar despite apparent wound closure.

To address this problem, the vertical mattress suture was developed. This technique combines the tension-relieving benefits of a deep tissue bite with the wound-edge eversion achieved by a superficial bite placed near the skin margins. The result is a closure that provides both strength and optimal skin edge approximation.

The vertical mattress suture consists of two components. The first is a deep, wide bite that incorporates both skin and subcutaneous tissue and serves to reduce tension across the wound. The second is a superficial bite placed close to the wound edge in the reverse direction. This superficial component gently everts the skin margins, promoting accurate epidermal alignment and improved healing.

Before beginning this exercise, remove the sutures previously placed in line 3. Use a 3-0 nylon with a 30 mm needle. Begin by placing the deep component of the vertical mattress suture. Using the same technique employed for a simple interrupted suture, pass the needle across the wound from the far side to the near side, incorporating a relatively large bite of tissue on each side of the incision. As with previous exercises, the needle should be advanced toward yourself while following its natural curved path.

Next, reload the needle in the opposite orientation within the needle holder. This technique is commonly referred to as "backhanding" the needle and allows the superficial component of the mattress suture to be placed in the reverse direction.

Using a reverse wrist motion, grasp the skin edge closest to you and place a small, superficial bite through the dermis immediately adjacent to the wound edge. Pass the needle across the incision and take a corresponding superficial bite on the opposite side. These bites should be much smaller and closer to the wound edge than the initial deep bites.

Tie the suture using an instrument tie and observe the effect on the wound margins. When properly performed, the skin edges should evert slightly rather than invert. This subtle eversion promotes optimal epidermal alignment and is one of the primary advantages of the vertical mattress technique.

The backhand technique required for the superficial component may initially feel awkward. Development of this skill requires practice and repetition. As proficiency improves, the learner will gain greater confidence in needle control and in the management of wounds under tension.

Place vertical mattress sutures into the skin of line 3. There are no guides, so try to space the sutures evenly. The initial large bite should be slightly farther away from the skin edge than is seen with the dots. Try to put the reverse skin-edge suture as close as possible to the cut edge. Tie with instrument ties. Pay particular attention to practicing the backhand part of this suture. Place 5 vertical mattress sutures on line 3.	☐
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Closing a curved incision

After mastering straight-line closures, you are ready to begin suturing curved incisions. Although the technique used to place each suture remains the same, curved wounds require special attention to suture spacing.

Examine the guide dots along the wound edges. You will notice that the dots on the inside of the curve are positioned closer together than those on the outside of the curve. This difference is intentional. The inner edge of the wound travels a shorter distance than the outer edge, so the sutures must be spaced differently to allow the two wound edges to meet evenly.

Begin by elevating the tissue in the middle of the curve with the Adson forceps. Insert the needle perpendicular to the skin surface and allow it to follow its natural curvature through the tissue. Take equal tissue bites on both sides of the wound and maintain a

consistent distance from the wound edge. Symmetry remains just as important in curved closures as it is in straight-line closures.

As you place each suture, observe how the distance between bites differs on either side of the wound. Proper spacing is critical when closing curved wounds. If the sutures are placed too far apart, or if the spacing does not account for the changing geometry of the curve, the closure may develop bunching, pleating, or small folds of excess tissue. Adjusting the spacing allows the longer outer edge and shorter inner edge to meet evenly.

As the closure progresses around the curve, the skin edges should align naturally without gaps, overlap, or excessive tension. After placing several sutures, the curved edges should begin to lie smoothly against one another.

Complete the curved incision on Line 5 using the guide dots. Once you are comfortable with the pattern, close Line 6 without the dots. As you work, try to visualize where the guide dots would have been placed, remembering that they should be closer together along the inner curvature of the wound.

Periodically step back and evaluate the overall appearance of the closure. A successful curved closure demonstrates evenly spaced sutures, accurate wound-edge approximation, and a smooth contour along the entire length of the curve. Developing the ability to recognize these characteristics is an important part of becoming proficient at wound closure.

Place a running suture along line 6. This will test your ability to maintain correct spacing for an accurate closure
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Running subcuticular sutures

For small procedures with clean wound edges, it is very convenient to place the sutures "under the skin". Subcuticular sutures are placed within the dermis, and the resultant closure is usually reinforced with Steri-strips or tissue glue. Suture removal is unnecessary. Usually, this suture technique involves a continuous suture that is anchored at either end with a knot in the subcutaneous tissue.

For this exercise, you will use the 4-0 nylon on a 19 mm needle. Usually, an absorbable suture such as polyglactin, polydioxanone, or poliglecaprone is used, but nylon has the same characteristics for practice purposes. Because you want the forceps in front of the suture, you will probably want to sew from right to left. We are going to practice entering and exiting the subcuticular layer on one side. As a first practice step to get the feel of the subcuticular bite, grasp the top of the incision in line 4 about an inch from the right corner apex with the forceps. Place the needle so that it enters the substance of the skin edge at about a 30° angle and exits about 5 mm to the left, just about the point that you are grasping with the forceps. You will find the skin of this model to be quite flexible and difficult to stabilize, but this is how it really is. You may have to pull the skin edge up

and away from the board to stabilize it as the needle goes through. The first couple of times, it might be frustrating, but keep practicing ... you will get it!

Pull the suture through until about 2 inches remain. Now, place another suture in the same fashion at a point about one cm along the wound on the same side (we are practicing subcuticular entry and exit.) Continue until you have placed sutures through nearly the entire length of the upper skin edge. Repeat for practice. Now do the same thing on the lower skin edge and repeat. You will find that there are different hand motions for sewing on the upper and lower skin edges.

Now for the real thing: Start your suture line on the right by taking a bite of the deep subcutaneous tissue (that would be the foam) and tie a knot with the instruments. You can get started by backhanding a suture into the subcuticular apex of the incision. Enter the skin on the undersurface of the apex and push the needle out just below the surface of the skin, right at the apex of the cut surface. Now, place a bite at the upper edge of the incision just to the left of the apex and retrieve the needle. The next bite is placed on the other side, entering directly across from where the previous suture exited. The skin edges should align without pleats. Continue down the incision while trying to keep the sutures evenly placed. At the other end, complete the suture line with a final bite that starts subcuticularly in the apex and continues deep into the subcutaneous tissue. A loop is left in the next to final bite to be used for the tie. After tying the knot, the loop is cut off, and the remaining end connected to the needle is brought from the depths of the wound out through a spot in the normal skin a centimeter or two from the incision. . The suture is cut flush with the skin. Voilà ... you have just completed a subcuticular closure!

Now practice:

Remove the previously placed subcuticular suture and place another one to close line 4. Repeat one more time	☐
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Complex Closures

You have now practiced simple interrupted sutures, running sutures, instrument ties, curved wound closures, and subcuticular suturing. This exercise combines those skills in a more complex wound closure.

At the top of the Sim*Skin Ultimate board are two intersecting wounds that create a V-shaped flap. These wounds require a special technique to properly secure the tip of the flap.

One of the most important aspects of a V-flap closure is preserving the flap tip. If the tip is not incorporated correctly, the wound edges may not align properly, resulting in bunching or distortion of the tissue.

Begin by loading a 4-0 nylon suture into your needle holder. On line #7, place a simple interrupted suture near the upper portion of the wound, close to the V-shaped flap. This suture should exit in the subcuticular skin edge. This initial suture helps align the wound edges and provides stability for the remainder of the closure.

Next, focus on the tip of the flap. Using Adson forceps, gently elevate the flap tip. Place a small subcuticular bite through the dermal layer of the tip of the flap without passing the needle through the skin surface. Then pass the needle through the skin on the opposite side of the wound as you would when placing a simple interrupted suture with an entry in the subcuticular tissue.

As you tie the suture, observe the flap tip carefully. It should settle naturally into position as the wound edges come together. Proper placement of this stitch allows the tip of the flap to align smoothly with the surrounding skin margins and helps create an aesthetically pleasing closure.

This technique is commonly referred to as a **corner stitch** or **triangular stitch**. It is frequently used to incorporate a flap tip into a wound closure while preserving both its shape and blood supply.

Once the flap tip has been secured, complete the remainder of the wound using either simple interrupted sutures or a running suture. After completing the first V-flap closure, repeat the process on the second wound.

Remove the previously placed sutures from lines #7. Reclose each wound on lines #7 and #8 in the same manner.

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Practice ... on your own time

It is time to practice. Take your suture board to a quiet place (or if you work better under stress, go to a noisy place) and either stand at a table with the board a comfortable distance from your shoulders (while standing straight – no backaches from this module!) or sit with the board at about three-quarters of an arm's length away and at mid-chest level. Make sure there is good light and that all of your instruments are within easy reach. If you feel comfortable, you can transition your practice of the simple and mattress suturing techniques with the smaller 24 mm needle on the black nylon, which is closer to the real needle that is used.

Start on line 1. Close this skin incision with simple interrupted sutures. Instrument ties should contain six throws. Don't forget to use the curve of your needle. Needle orientation on entry and exit should be perpendicular. How does it look? Would you accept this if you were the patient?
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Now go to line 3. Close this incision with simple

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interrupted sutures. Are you still doing pretty well, even though there are no dots to guide you?	
Back to line 2. Close this incision with a running simple suture. Don't forget to maintain some tension on the suture line as it progresses. Does this look as good as the one you did for the instructor?	☐
Move on to line 4. Close this incision with a running simple suture. Are the external crossover sutures parallel? Remember that, no matter how good you are, the patient only sees the skin closure. Make it a work of art!	☐
Go to line #3. Close the incision with interrupted vertical mattress sutures. Are the edges inverted? How is your spacing?	☐
Now, focus on line #4. Close it again with a running subcuticular suture. Are there pleats on either side? There shouldn't be! Take it out and do it again, if necessary, to avoid any pleating.	☐
Close the curved line 7 with simple interrupted sutures.	☐

Remove the sutures and go back to your mentor for a check-up.

Verification and Demonstration

The purpose of this session is to make sure that you have learned and are performing the tasks correctly. In front of your instructor, do the following:

Go first to line #3. Close half of this incision with simple interrupted sutures. If you are doing well, have your instructor initial next to the box.	☐ _____ initials
Now go to the other half of line #3. Close half of this incision with a running simple suture. Good enough for initials?	☐ _____ initials
Close half of line #4 with interrupted vertical mattress sutures. Are the edges apposed?	☐ _____ initials
Take out the sutures on line #4. Close it again with a subcuticular suture. Do you think that the patient would approve of your job?	☐ _____ initials

Is the instructor satisfied? If so ... congratulations! You have successfully completed this module! Be proud of your work! Feel free to show your completed suture board proudly to all of your friends and family.

After completing this exercise, you shouldn't rest on your laurels. Dust off your suture board occasionally and practice a little. Remember that Shaq became a maestro of basketball by shooting 500 baskets a day for his entire life. Practicing a few sutures every

now and then will certainly maintain your skills (although it might not get you a contract with the NBA). Good luck in achieving all of your career goals.

John B. Fortune, MD

Revised 6/26

Written entirely by the author
AI was used in part for editing.

Module Contents

Suture Practice Board

Hegar Needle Driver

Adson Forceps

Suture Scissors

Suture material 10 each:

3-0 nylon on 30 mm reverse cutting needle (blue)

3-0 nylon on 24 mm reverse cutting needle (black)

4-0 nylon on 19 mm reverse cutting needle (black)

Guidebook access on the website

Some materials are made in China and Pakistan and proudly assembled in the USA in Naples, Florida.
No materials in this module are sterile. All contents are to be used for educational or demonstration purposes only. Not approved for use on humans or animals. Please dispose of sharp materials in a safe manner.



Sim*Vivo, LLC
14848 Old 41 Road
Naples, FL 34110
www.sim-vivo.com