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# HAND-SEWING

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(A Survival Guide)

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## Introduction

This guide is designed to instruct beginners in basic sewing skills. It contains a list of common tools and stitch styles, as well as instructions for patching tears and holes and replacing two-hole and four-hole buttons. The materials in this guide can be found at nearly any craft or fabric store. Sewing kits containing all necessary tools can commonly be found at grocery stores and other general stores as well.

### Tools

Common hand-sewing tools include:

- A. Needle (Size 7 is appropriate for most projects) – Pulls the thread through fabric.
- B. Needle Threader – Used for pulling thread through the eye of the needle.
- C. Spool of Thread
- D. Seam-ripper – Used to cut and pull out threads which have been sewn into fabric.
- E. Thimble – Protects the fingertips, especially when working with thick fabrics.
- F. Pins – Hold fabric in place.
- G. Safety Pins
- H. Pincushion – Stores pins and needle when not in use.
- I. Fabric Pencil – Used to mark fabric.
- J. Measuring Tape
- K. Fabric Shears
- L. Thread Trimmers



## Terminology

**“Eye” of the Needle:** The small hole at the end of the needle opposite the sharp tip. Used for holding thread used for sewing.

**Underside or “Wrong” side of Fabric:** The side of the fabric which will not be visible when the garment is worn. In patterned, embroidered, and knitted fabrics, this is easily determined.

**Topside or “Right” side of the Fabric:** The side of the fabric which is visible when the garment is worn. Usually brighter in color than the “wrong” side, and with a clean appearance at the seams.

**Hem:** The edge of a piece of fabric or clothing, usually turned over and sewn flat, such as the hem on a sleeve, neckline, or pant leg.

**Seam:** Where two segments of fabric meet, usually joined together by a backstitch or running stitch if hand-sewn, or by a serger stitch if manufactured or done by machine. An example includes the seam where sleeves attach to the body of a shirt.

**Tacking:** The action of making a fast loose stitch, usually a running stitch, to hold a piece of fabric in place. Tacking is sometimes used temporarily in place of pins, or more permanently, as in tacking down the edges of a patch.

## Getting Started

The first step in getting started includes choosing your needle and thread and threading the needle. For most basic projects, a size 7 needle is appropriate, along with all-purpose thread.

### Choosing a Thread Color

Generally, it is best to choose a thread color that is as close as possible to the color of your fabric, even if it will only be seen on the underside. When working with patterned fabrics, choose the most prominent color. When in doubt, it is better to choose a lighter color (e.g. white thread on gray fabric vs. black thread on grey fabric).

### Threading the Needle

By hand:

- 1) Cut a length of thread from the spool approximately 2 times the length of the project, or the maximum length that is comfortable to work with.
- 2) Hold the needle at the tip in your non-dominant hand.
- 3) Hold one end of the thread in your dominant hand.
- 4) Push the tip of the thread through the eye of the needle, pulling it through to the other side.

**Note:** thread should only be cut using thread trimmers. Using fabric shears on thread, paper, or other materials will dull them.

With a needle threader:

- 1) Cut a length of thread from the spool approximately 2 times the length of the project, or the maximum length that is comfortable to work with.
- 2) Hold the needle in your non-dominant hand.
- 3) Pinch and push the wire tip of the needle-threader through the eye of the needle, creating a loop on the other side of the eye.
- 4) Put the tip of the thread through the wire loop.
- 5) Pull the needle-threader out of the eye of the needle, bringing the thread through the eye.

**Tip:** wetting the end of the thread with water or saliva will help it to pass through the needle.

Tying off:

Double-Threaded:

- 1) Adjust the thread so there are two equal lengths on either side of the needle.

- 2) Wrap the ends of the thread around your forefinger(s).
- 3) Rub your thumb and forefinger(s) together, rolling the threads.
- 4) Use your fingernails to slide the rolled thread down towards the ends of the threads, creating a knot.

Single threaded:

- 1) Leave a few inches of thread on one side of the needle, and the majority of the thread length on the other side.
- 2) Tie a simple knot on the long end of the thread by wrapping it around your forefinger and rolling the finger and thumb to create a knot, as above.

## Stitching Basics

### Running Stitch

Figure 1: Needle "running" through fabric.

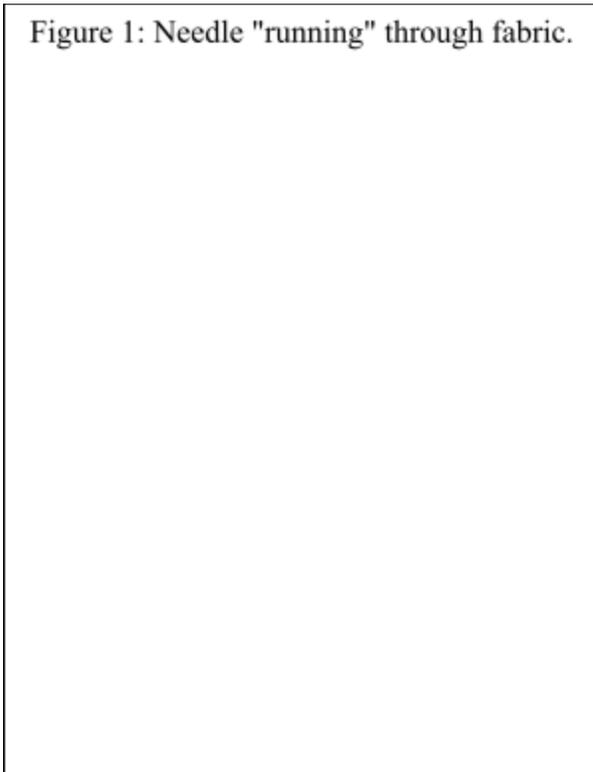
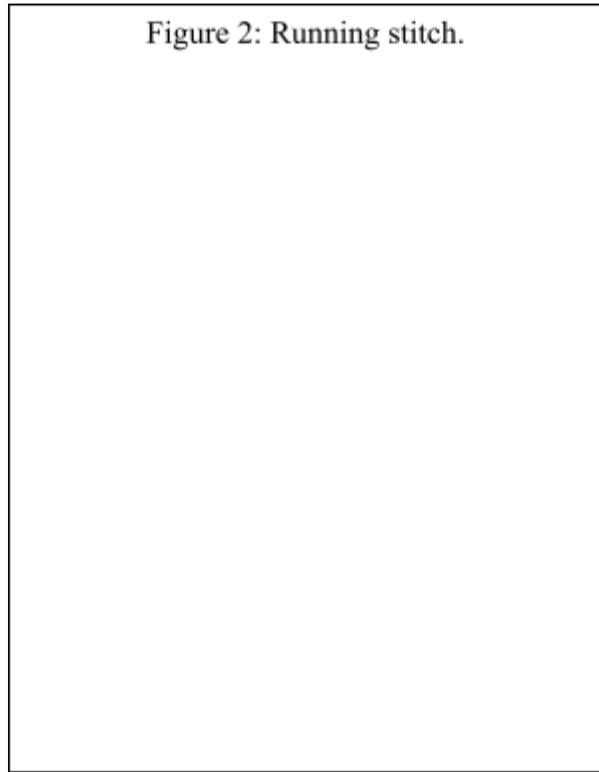


Figure 2: Running stitch.



**Best used for:** Quick sewing, joining fabric at the seams, and creating gathered fabric.

**How to:**

- 1) Push the needle up through the underside of the fabric.
- 2) Pull through until the knot in the thread rests against the fabric.
- 3) Weave the needle up and down through the fabric at equal increments, keeping the fabric as smooth as possible.
- 4) Pull the needle through the weaves every 3-4 stitches.

## Backstitch

Figure : Backstitch on the wrong side  
of the fabric.

Figure 4: Backstitch on the right side of  
the fabric.

**Best used for: Creating a strong hold and a smooth, even stitch line.**

### **How to:**

- 1) Hold fabric so the wrong side is facing you.
- 2) Pull the needle down through the wrong side of the fabric.
- 3) Pull until the knot in the thread rests against the fabric.
- 4) Push the needle back down through the fabric a short distance away from the first entry point.
- 5) Pull the needle up through the first entry point. You have created your first stitch.
- 6) Passing over the first stitch, push the needle down through the fabric at 2X the length of the first stitch.

**Tip:** Think “two steps forward,  
one step back.”

- 7) Pull the needle up through the second entry point in the fabric. This creates your second stitch.
- 8) Push the needle down at a fourth entry point and pull it up through the third entry point.
- 9) Continue. The wrong side of the fabric will appear to have overlapping long stitches, while the right side will appear to have consecutive short stitches.

### Whipstitch

Figure 5: Whipstitch on the wrong side  
of the fabric.

Figure 6: Whipstitch on the right side  
of the fabric.

**Best used for: Closing a folded hem.**

#### **How to:**

- 1) Hold the fabric so the wrong side and the folded hem are facing you.
- 2) Pull the needle up under the folded hem edge.
- 3) Pull until the knot in the thread rests hidden within the fold of the hem.
- 4) Push the needle down through the fabric just outside the hem at a slight diagonal, keeping as close as possible to the hem edge.

- 5) Push the needle up through the outside of the fabric and the hem edge. This creates your first stitch.
- 6) Push the needle down at a diagonal again, effectively wrapping the hem edge.
- 7) Continue. Keep the thread snug but not too taught.

## Repairing Damage

For both holes and tears, using a patch to repair is common. Patches are not always necessary for tears, but this largely depends on the fabric type, location of the tear, and degree of damage. The purpose of a patch is to give more support and structure to the damaged fabric and provide a basis for your stitches. To create a patch, cut a piece of fabric that is similar in color and fabric type to your garment. Matching the patch to the garment is more important for holes than tears, as a patched hole will be more visible. The patch should be slightly larger than the hole or tear, and excess length can be trimmed after the patch is sewn.

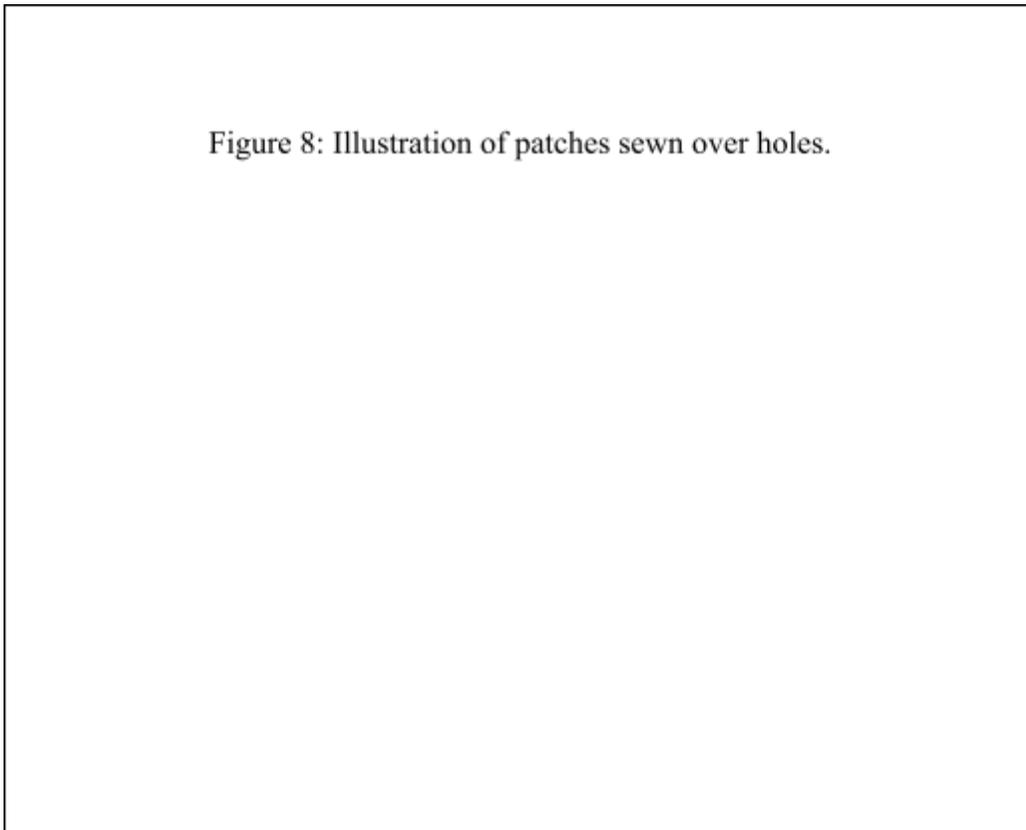
### Tears

Figure 7: Illustration of a patch sewn over a tear.

- 1) Hold the garment so the wrong side of the fabric is facing you. You may need to turn the item inside-out.
- 2) Line up the edges of the tear.
- 3) Place the patch over the tear.
- 4) Sew around the border of the tear using a running stitch, as in the inner rectangular stitches shown above. This will hold the patch and tear in place.
- 5) Use a whipstitch to sew within the shape you've just created, over the edges of the tear.
- 6) Trim the border of the patch to a suitable but sturdy size, if trimming is necessary.
- 7) Tack the border of the patch down with a running stitch.

**Note:** Be mindful of how visible your stitches are on the right side of the fabric. Try to keep them as small as possible on the right side.

## Holes



- 1) Hold the garment so the wrong side of the fabric is facing you. You may need to turn it inside out.
- 2) Place the patch squarely over the hole in the fabric.
- 3) Sew through the patch and around the edges of the hole using a running stitch, keeping stitches as close to the edge of the hole as possible.
- 4) Trim the border of the patch to a suitable but sturdy size, if trimming is necessary.
- 5) Tack the border of the patch down with a running stitch

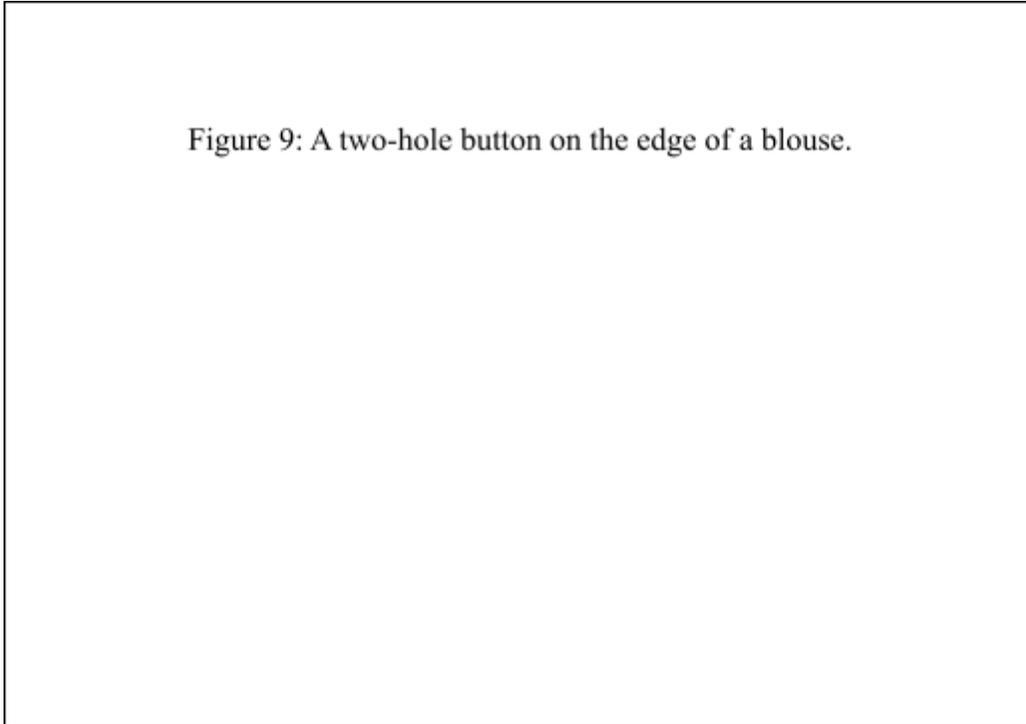
**Note:** Be mindful of how visible your stitches are on the right side of the fabric. Try to keep them as small as possible on the right side.



## Sewing Buttons

Buttons can be easily replaced or exchanged. There are several kinds of buttons and other closures, the most common of which are two-hole and four-hole buttons.

### Two-Hole



- 1) Determine the location of your button. A fabric pencil can be used to mark the location and ensure alignment with a buttonhole.
- 2) Hold the garment so the right side of the fabric is facing you.
- 3) Push the needle up through the underside of the fabric where you would like the button to be located.
- 4) Pull until the knot at the end of the thread is against the underside of the fabric.
- 5) Drop one hole of the button onto the needle and thread, letting the button fall to the fabric.
- 6) Run the needle and thread through the opposite hole on the button
- 7) Push the needle down into the fabric as close as possible to the first entry point.
- 8) Pull the button close to the fabric, keeping 1-2mm of space.
- 9) Push the needle up through the underside of the fabric and between the base of the button and the topside of the fabric.
- 10) Wrap the thread around the two stitches you've made under the button, about 3-4 wraps.
- 11) Push the needle back down into the fabric after wrapping.

- 12) Continue to pull the needle up through the fabric, through one hole of the button, over through the other hole and down into the fabric about 4-5 more times.
- 13) Finish by cutting the thread and tying a knot on the underside of the fabric.

### Four-Hole

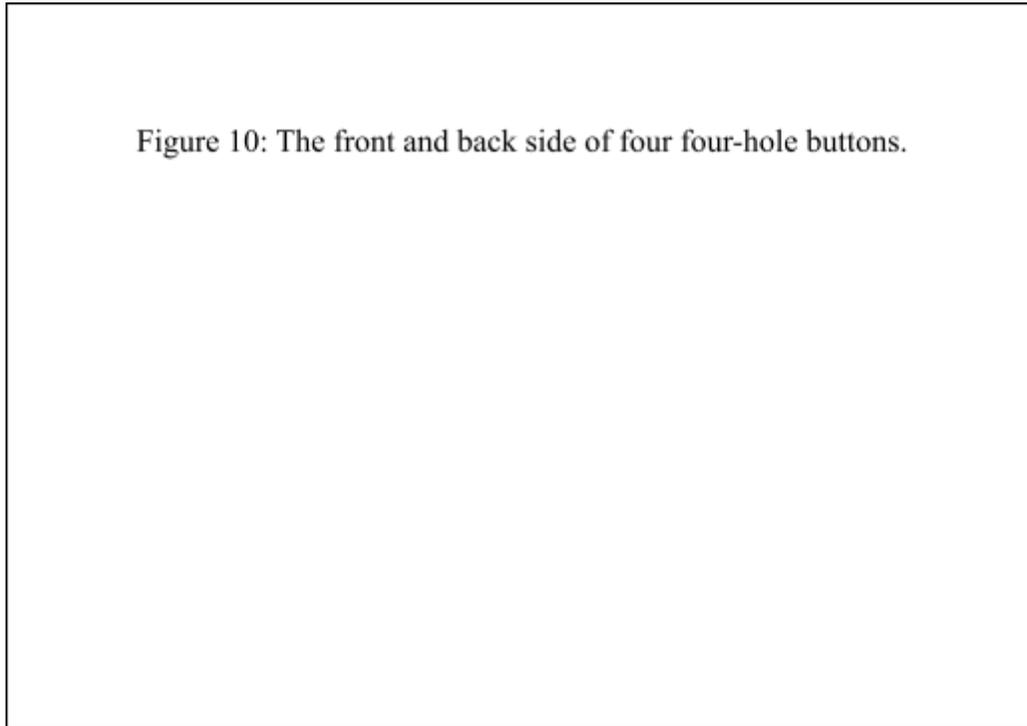


Figure 10: The front and back side of four four-hole buttons.

- 1) Determine the location of your button. A fabric pencil can be used to mark the location and ensure alignment with a buttonhole.
- 2) Hold the garment so the right side of the fabric is facing you.
- 3) Push the needle up through the underside of the fabric where you would like the button to be located.
- 4) Pull until the knot at the end of the thread is against the underside of the fabric.
- 5) Drop one hole of the button onto the needle and thread, letting the button fall to the fabric. The front of a four-hole button has a concave shape.
- 6) Run the needle and thread through the opposite hole across on the button.
- 7) Push the needle down into the fabric as close as possible to the first entry point.
- 8) Pull the button close to the fabric, keeping 1-2mm of space.
- 9) Push the needle up through the underside of the fabric and between the base of the button and the topside of the fabric.
- 10) Wrap the thread around the button and two stitches you've made under the button, about 3-4 wraps.
- 11) Push the needle back down into the fabric after wrapping.
- 12) Pull the needle up through the fabric and through one of the empty buttonholes.

- 13) Cross down through the opposite buttonhole, creating an X-pattern on the face of the button.
- 14) Continue to run the needle up through the fabric and buttonhole, and down through the opposite hole into the fabric in an X-pattern 4-5 more times.
- 15) Finish by cutting the thread and tying a knot on the underside of the fabric.

## Troubleshooting

### Dull Needle

Dull needles will create difficulty in pushing through the fabric and can even damage delicate fabrics. If the dull needle cannot be replaced with a new one, look for a needle sharpener hanging from the pincushion. This is called an emery strawberry. Stick the end of the needle into the emery strawberry and roll it between your finger and thumb, twisting the needle a few times within the strawberry. This should effectively polish and sharpen the needle.

### Thread Break

When a thread breaks mid-stitch it can be frustrating. Use a seam-ripper to pull out the last few stitches made, until there is enough loose thread to create a knot against the fabric. Re-thread the needle and start sewing a couple inches back from where the last thread ended, overlapping for a few stitches before continuing.

### Thick Fabrics

When sewing with particularly thick materials such as thick denim, leather, vinyl, corduroy, suede, or canvas, it may be helpful to place a thimble over the thumb or forefinger. The thimble protects the finger pads from becoming sore or injured by the back of the needle when pushing through thick fabrics. A thicker needle is necessary for thicker fabrics, as a smaller needle may bend under pressure. A curved needle can also be helpful, but has been excluded from this guide because it is not typically a beginner's tool. When working with heavy fabrics, it is important to choose heavy-duty thread, as all-purpose thread may not be strong enough to withstand the strong force of pushing the needle.

### Delicate Fabrics

Delicate fabrics such as satin, silk, organza, lace, mesh, and chiffon can have a tendency to catch on the needle. Working slowly and with a fresh, sharp needle is the best way to avoid snagging the fabric. Some fabrics will operate best with thin, lightweight thread rather than a rougher all-purpose thread. These kinds of fabrics can also have a tendency to slip and shift while being sewn. To prevent slipping, it is best to work on a large, flat surface and use pins, clips, and weights as needed.

### Unruly Fabrics

When fabric is wrinkled, stiff, or unruly, ironing is the best way to correct this. Most fabrics are safe to iron, but it is important to pay attention to the composition of the fabric to know which heat/steam setting is appropriate. Synthetic fabrics such as polyester and satin need a very low heat. Natural fabrics such as cotton and linen can tolerate higher heat and steam settings. Ironing can help to smooth out wrinkles and press a folded hem flat before sewing.