



Beadshop Basics: Wire Wrapping

with Emily Miller

Time to work on wire wrapping skills! Get all the info on pliers, choosing wire gauges, and the techniques that will make you a confident wire worker. What wire is the appropriate gauge for your beads? Why should you make each type of loop and when? Make wire loops your number one skill! Simple and wrapped loops are the foundation of wire wrapping. Let's get started...

Wire Hardness

"Temper" is the term used to describe the malleability of the metal wire. Sterling silver or gold-filled wire is available in multiple tempers. Most unlabeled craft wire is dead soft.

Dead Soft is wire at its most flexible, able to be bent repetitively without becoming brittle, stiff, or breaking. Great for knitting, weaving, or decorative wrapping.

Half Hard wire is a bit stiffer. It holds its shape well but can be too stiff to manipulate for multiple bends with a smooth result. Half hard wire is good for smaller gauges with smaller beads, making wrapped loops that hold their shape better.

All wire (and metal) is subject to *work hardening* which is the change in temper caused by bending. Too many bends and the wire may break. But work hardening can also help by stiffening the wire to hold a shape more permanently.

Wire Gauge

American Standard Gauge is the system used to describe the different sizes of wire. It can also be measured in millimeters. For gauge numbers keep in mind that as the number gets higher the wire gets smaller.

Choose the right wire for the look and durability for each piece of jewelry. Check that the beads you've chosen will fit on the wire, that the wire will make the style of loop you'd like to make, and the loop will be durable for a long life. Follow the chart on the next page to help match beads, wire and loop styles. And in the case of unique situations or design choices, *always* "do you" for your own style!

There are tools available to help you determine the size of your wire. Calipers can measure in millimeters, and a wire gauge can give you a more specific measurement based on gauge.

6mm Czech bead
24g Wire wraps



6mm Czech bead
20g Simple Loops



4mm Czech bead
24g Wire wraps



3mm Czech bead
26g Wire wraps



2mm Czech bead
26g Wire wraps



Tru two 2mm bead
26g Wire wraps



Wire Gauge or mm

	28g .32mm	26g .4mm	24g .51mm	22g .64mm	20g .81mm	18g 1mm	16g 1.2mm	
Bead Types and Techniques	Semiprecious Stone & Pearls		✓	✓	✓			
	Pressed Glass, vintage or new		✓	✓	✓	✓	✓	
	Metal Beads		✓	✓	✓	✓	✓	
	African Metal- hole sizes vary		✓	✓	✓	✓	✓	
	Seed Beads 6/0 & 8/0		✓	✓	✓			
	Seed Beads 11/0		✓	✓				
	Seed Beads 15/0	✓	✓	✓				
	Bullion, Weaving	✓	✓	✓				
	Clasps				✓	✓	✓	✓
	Earwires				✓	✓		
	Jump Rings				✓	✓	✓	✓

How do you choose a wire for a particular design? Consider a few practical and aesthetic options!

Big or little beads? Big or little holes?

Bead size and hole size are not necessarily related, big beads can have very small holes! To attach beads to one another with a loop of wire, the wire must pass through the bead. Most beads will accept a range of wire gauges, so there may be options to choose from. Keep scraps of wire around to test through beads, or make a collection of all the wire sizes you have so you can test the hole easily.

Bead holes can also be enlarged (in natural materials) using a bead reaming bit, either with a bit of hand work or using a Dremel or Flex Shaft.

It's a good idea to look carefully at the bead holes when you choose your beads. Well drilled, even, and well sized holes are the sign of a better quality bead. Experienced bead sellers online, like beadshop.com, will list the hole size in the description.

Wrapped loop or simple loop?

Simple loops are a plain loop (without wraps) on either side of a bead. They are classic and simple in design, to not detract from the beads. They are also called Rosary Loops.

Wrapped Loops are a loop that is closed by wrapping the wire in coils at the base of the loop, completely closing the loop.

Simple Loops 101:

Since they are not wrapped you will want to make them with 20g wire or larger for stability and security. Sturdier head pins may lend themselves to simple loops as well, making quick work of creating lots of dangling beads!

Simple loops also look amazing in larger gauges. If you happen to have beads with larger holes using a larger wire can be a great design element. Keep in mind that simple loops are openable and can fail under too much pressure.

Use a simple loop when creating your own ear wires and clasps.

Wrapped Loops 101:

Can be made in most gauges, 28g-18g. Keep in mind wrapping with heavier gauges is harder on the hands! Thinner head pins can also be wrapped at the bead.

Wrapped loops are sturdy, not easily unmade, and are a good choice when working with smaller beads, chain, or where durability and security are required.

Be sure to remember to connect to another wrapped loop, chain or finding *before* wrapping the last loop closed.

Big or little loops?

This is 'makers choice'! As long as the loops you make function as desired, the size of loops you make is up to you! Make a sample or two with your intended loop sizes to try out the finished result before making a whole piece of jewelry.

Smaller loops are more delicate, add intricacy and details to a design. Larger loops look more chain like, especially in heavier gauges of wire.

Tip: to ensure you are making the same size loops, mark your round nose plier with a Sharpie and line your wire up to the mark for each loop!

Head Pins and Eye Pins

Head pins are pieces of wire made with a stopper on the end, perfect for creating a charm, earring, or dangle. Available in several different gauges with stoppers ranging from a plain flat end to a ball end or decorative end. You can even make your own out of wire scraps!

Eye pins are wire pieces with a simple loop already on one end, perfect for a quick earring!



Tools

Wire wrapping tools are not complicated! They help to bend, hold, manipulate, straighten, or cut wire.

Chain Nose Plier

The tapered jaws of this plier allow for reaching into narrow spots. The jaws are flat on the inside to prevent leaving marks behind.



Bent Chain Nose Plier

Much like a chain nose, just bent! They are a great addition to the basics, and a required tool for working with jump rings or in tight spaces. Many times having two tools to grip and manipulate wire with is crucial.



Round Nose Plier

The round tapered jaws of this plier are *just* for making the circular part of a loop, by forming the wire around the jaw of the plier. Using this plier for *holding* wire will result in tool marks!



Nylon Jaw Plier

The nylon jaws of this tool are perfect to straighten and slightly harden the wire before working. Grasp the wire in the jaws and slide the jaw over the wire to remove errant bends and soften kinks.



Flush Cutter

To work with wire cutting cleanly and closely is critical! Use the flush cutter to get as close as possible with the flat side of the jaws, removing any excess wire.



Making Simple Loops

Step 1. Using your chain nose pliers, bend a 90° angle with ½" of wire. This ½" is the size of loop you are making. The longer it is, the bigger the loop; shorter makes a smaller loop.

Step 2. Hold the wire so that the short end is pointing toward you. Using round nose pliers, hold the tip of the short wire between the jaws of the pliers. Your palm should be facing away.

Step 3. Using a rolling forward and downward motion, turn the pliers so that the wire bends around the jaw of the pliers. When your wrist feels as if it can turn no further, STOP. Loosen your grip on the wire, roll the pliers back towards you, and grip the wire gently and then continue rolling the plier until the end of the wire reaches the bend.

Step 4. Add a bead and bend the wire over the bead hole's edge. Cut off all but ½" of wire, leaving a flush cut on the end of the wire. Use the flat side of the flush cutters towards your work.

Step 5. Grasp the end of the wire in your round nose pliers and use the rolling forward motion to make a matching loop on the other side of the bead.

Remember:

To connect simple loop beads, open the loop across the opening, by grasping the end of the loop where it meets the bead, swing open, add your bead, and swing shut. This final bit of work hardening makes the loop stiffer and resistant to opening.

Always use chain nose pliers to open and close loops, swinging across the opening to keep the loop shape. The same method should be used to open jump rings or any other openable loop.



13x7mm tube beads. Simple loops with 20g wire.



Step 1



Step 2



Step 3



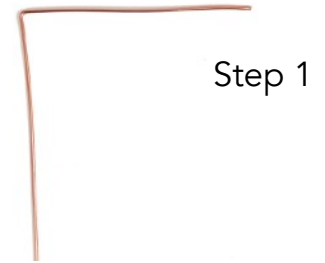
Step 4



Step 5

Wrapped Loops

Step 1. Using chain nose pliers, bend a 90° angle with 2½" of wire.



Step 2. Place your round nose pliers against the axis of the bend so that it is holding the shorter wire on, above and below, but not in the angle. Grab the shorter end of wire with your other hand. Pull the wire over the jaw of the round nose pliers so that the wire begins to bend into the shape of the loop. Continue pulling the wire around the pliers until the loop is finished and the end of the short wire is again at a right angle to the longer wire. You will have to release the pliers and roll them forward one time in order to complete this step.



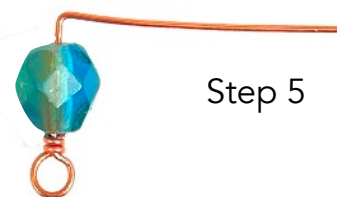
Step 3. Hold the loop closed with the chain nose pliers. *Caution: gripping the pliers too hard will mar the wire.* With your other hand pull the short wire around the longer one creating a wrap. Coil the wire around at the base of the loop up to three times. The wraps should fit snugly together forming a coil.



Step 4. Cut the excess wire flush to the wraps. Use chain nose pliers to push the last bit of wire flush with the wraps.



Step 5. Add a bead! On the other side of the bead, measure the first set of wraps and position the chain nose pliers so there is enough room to make the same number of wraps. After making the 90° angle, position the round nose pliers against the axis of the bend to make the loop.



Step 6. Complete the loop on the other side of the bead. If you are connecting to a completed loop, slide the connection loop on *before* wrapping the loop closed. Continue with the wrapping to secure the link to the chain of beads. Cut off the excess wire and use the chain nose pliers to push the end of the wire flush with the wraps.



6mm fire polish beads. Wrapped loops with 24g wire.