

Knots and Throws



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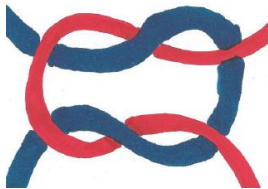
Clinical Skills

Knots and Throws

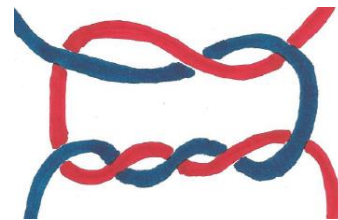
Square Knot & Surgeon's Knot

Different surgeons have different preferences for the knots they use in different circumstances. Below are two approaches.

Square knot: once round the needle holders for each throw (i.e. first, second and subsequent throw/s).



Surgeon's knot: twice round the needle holders on the first throw, once on the second (and subsequent throw/s).



The number of throws needed for each knot depends on:

- Whether using a square knot or a surgeon's knot
- The suture pattern (simple interrupted or continuous)

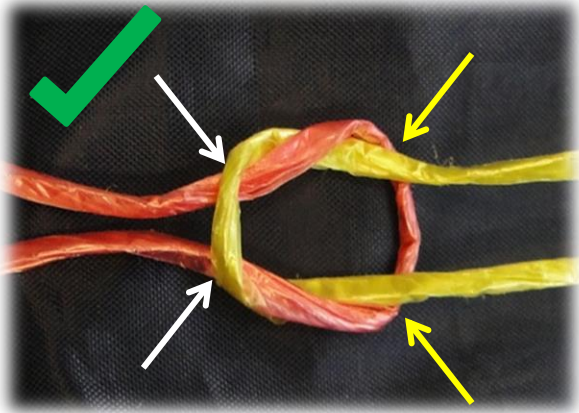
See table below for guidance:

		Square Knot (throws)	Surgeon's Knot (throws)
Simple Interrupted		3	4
Simple Continuous	Start	4	5
	End	5	6

Clinical Skills

Knots and Throws

Tying a Square Knot (in string)

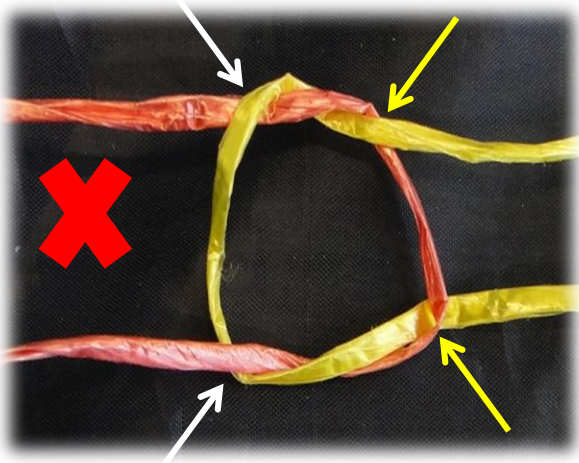


This is a square knot (also known as a reef knot).

Compare it to the other knots below.

On the right-hand side of the picture, both the yellow strands run over the top of the red loop (yellow arrows).

On the left-hand side, both the red strands run under the yellow loop (white arrows).



This is a granny knot. It is not secure.

Compare it to the square knot above.

On the right-hand side of the picture, one yellow strand runs over the red loop and one runs under the red loop (yellow arrows).

On the left-hand side, one red strand runs over the yellow loop and one runs under (white arrows).

Avoid creating granny knots by always following the correct technique.



This is a slip knot or half-hitch, and should be avoided as it is not secure.

Compare it to the square knot (at the top).

Half-hitches form when uneven tension is applied to the ends of a knot.

Even if you perform the correct hand movements but apply uneven tension, an insecure knot will be created.