

Knots and Rigging Skills for Aggie Grotto Vertical Training

The following are supplementary guides for tying the various knots, coils, and anchors used by the Aggie Grotto in vertical caving. This is NOT a substitute for the hands-on instruction required for vertical checkoff.

Rigging Knots

This first set of knots will be introduced in sessions 1,2, and 3. They consist of the bare minimum of knots that can be used to rig a vertical pit. Included are basic loops and the stopper knot the grotto has standardized on.

- Figure 8
 - <https://youtu.be/EtzelQjcKEs?si=ZzMXj7s8mvFWvMY3>
- Figure 8 on a Bight
 - https://youtu.be/kbB85p_uJsE?si=nj46x_9pblm2--06
- Figure of 8 Follow Through
 - https://youtu.be/-PrD3JWvApQ?si=zVOw45BQe_766xs- (Ignore the safety knot at the end, we don't use them)
- Alpine Butterfly
 - <https://youtu.be/YkW0-bubjv0?si=zkS1yJdTrVmKr891>
- Barrel Knot
 - https://youtu.be/yRfjF5TcQbw?si=BYyyYQMPrsQQUY_O

The second set of knots will be a prerequisite for session 4. They include the rest of the knots the grotto uses for rigging.

- Double Figure 8 Loops
 - https://youtu.be/faqB-v_uboA?si=5l5zMqR2w5ClnkOE
- Water Knot
 - https://youtu.be/mWKfGmA3M48?si=u1YbUu2vKZ_ZhQsv
- Double Fisherman's Knot
 - <https://youtu.be/YHUv-oOMwRA?si=GRFe9AeFxYdOBNxR>
- Square Knot (**FOR NON-LIFE CRITICAL ACCESSORIES ONLY!!!**)
 - https://youtu.be/0Y_iorha2k4?si=xfXi2OZcdUJpFAPG

Not required for any session, the Munter hitch will be demonstrated in session 4. This is to show its function in contingency rigging and accident response.

- Munter Hitch

- https://youtu.be/GlbPPMWCRBc?si=qm-VlpPUJ36Sc_mB

Rope/Webbing Coils

These are rope/webbing coils the grotto uses to store the rope and webbing. Knowing how to tie these are a prerequisite for session 4. While they may not be life critical as the knots, they are crucial to preserve our gear in storage and transport.

- Caver Coil
 - <https://youtu.be/PgkzVZVULIQ?si=BjQ789tM3FMR4TvC>
- Webbing Daisy Chain
 - <https://youtu.be/huSy9FNQfZQ?si=1nvWo8hv92VoTDRF>

Anchors

These are taught in session 4.

- Tensionless Rig
 - <https://youtu.be/AEk7ub3dj0w?si=QDvL-dBAUyk6P-JE>
- Wrap 3 Pull 2
 - <https://youtu.be/6FEJl3dZZ7o?si=VVtmWdM240uz7gCt>
- Basket Hitch
 - <https://youtu.be/XzrEujjAe84?si=vHoQhmVdxWTQCQsC>

Other Useful Guides

- NCRC Knots
 - <https://youtu.be/saaeFhy5xXY?si=ITNBi74BHeYhvUVT>
- Forbidden Knots
 - https://youtu.be/dQw4w9WgXcQ?si=UgGVz_5YHvWvHh2u