

Home Rigging Dangers / Safe Practices Guide

The Boulder Circus Center and its staff do not encourage, and strongly advise against practicing aerial skills at home without professional equipment and the guidance of a certified coach. Training in unregulated environments can lead to serious injury or even death.

Safety First

Safety is a huge concern when rigging at home. *Thank you for doing your research before purchasing or hanging anything.*

While an element of risk is inherent in aerial circus arts, these risks can be minimized. Accidents caused by irresponsible practice and rigging can cause aerial circus arts to be seen as a very dangerous activity, when it need not be.

As aerial arts become more popular and more accessible, cases of injury and even death are also increasing.

With safety measures in place most of these injuries and deaths are 100% preventable.

We want our students to have the ability to be life-long aerialists and we want their lives to be long. Our students' safety, health, and wellness is our number one concern.

Quality aerial equipment is expensive, and our student's lives are priceless (you do the math).

To make an informed decision about whether practicing outside of the studio is right for you and/or your child, please thoroughly read through all of the information in this document and in the links provided.

As more people get into aerial and circus, more resources are being made to support these interested students. We are seeing more and more "instructional" videos appearing online - and in an industry with little standardization and regulation **it can be hard to separate the good from the bad - the useful from the dangerous!**

Always attend regular classes with qualified professionals before considering practicing outside of the studio and always check with your instructor first to see if they think you are ready. Home training in aerials is generally not recommended if you are a beginner. **Your teacher can advise you on suitable strength and conditioning exercises appropriate for your level.**

We all know the feeling...after starting, you just can't stop! You've got the aerial bug! An itch you can't scratch by going to class once a week.

If you are ready to practice outside of class and outside of the studio, it is important to **ONLY practice what you've learned in class.**

An experienced teacher is important for learning aerial arts. They are able to show you progressions and can judge your skill level and physicality. **Injuries will occur when people try tricks that are above their skill level.** Practicing improper form and technique will lead to bad habits, using the wrong muscles, and injury.

One of the benefits of learning at a studio is safety. **At a studio, there are countless safety precautions.** A good studio will have proper rigging that is inspected often and maintained properly. This rigging can easily support your weight and the dynamic weight you create when moving on an apparatus. Studios will also have proper safety equipment like landing mats to help avoid injury.

Another important safety precaution is a spotter. Your teacher will spot you when you try new tricks and they will correct any issues they see. An incorrectly wrapped silk can end very badly. A drop done from the wrong height can end even worse. While practicing drops in class, the teacher watches each student to make sure the wraps are done properly and that they are at the correct height for that particular drop.

You might be ready to train on your own once you've reached a high intermediate or advanced level and can perform skills without your instructor regularly cueing you or correcting your form. In this case, you must abide by the **golden rules** of out-of-studio training: **never train alone, always use a mat, and don't train skills you haven't been taught.**

The Internet

The internet is not a substitute for a certified, real-life aerial teacher. Our job as aerial instructors is to teach skills appropriate to the student's level, teach proper form, and teach proper technique.

No matter how detailed or thorough the video is, nothing compares to an actual person talking you through a move and demonstrating it again and again for you. For example, an in-person instructor can identify if a wrap is wrong and can explain moves in various ways.

YouTube has become an information warehouse where one can find a tutorial video on almost anything, including aerials. As many aspiring aerialists start to learn the basics, they stumble upon *really cool videos on the internet.* Performances, tutorials, and short training videos are all up on the internet for anyone to watch and absorb. So everything we see on the internet is true, right? Wrong. We all know that the internet is full of misleading and incorrect information.

YouTube videos often leave out essential steps necessary to perform a move properly. Many times a move requires you to engage many different muscle groups even if the move looks easy. An experienced performer in a video may activate a muscle they've been training for years and pull off a move you simply aren't ready for.

Because YouTube is a one-way transaction, you are unable to ask questions, gain feedback, and have your learning monitored responsibly.

*You wouldn't teach yourself, or let your child teach themselves, how to swim, ski, surf, rock climb, rappel, bungee jump, or skydive from a YouTube video, and you certainly wouldn't do any of those activities without a qualified instructor on site or subpar equipment. **The same applies for aerial arts.***

While videos are not a substitute for an instructor there are still some advantages to them:

- Videos (and books) are great for remembering an old trick that you've been taught but haven't done in a while or as a means to perfect a trick you recently learned.
- They are also great for inspiration. Watching a video where someone performs a familiar move in a stylized way can inspire your own art.
- Videos can be slowed down or paused to let you focus in on the exact movements of the performer.
- Videos can be accessed at any time. Watch videos before class to help visualize and mentally absorb motions.

Supervision

Never use any aerial equipment unsupervised! A qualified spotter is always necessary in case you get yourself tangled or fatigued. **"Never train alone" is a top rule for ALL aerialists of ALL levels, even professionals.**

Where do you plan to hang your aerial apparatus?

More often than not, the weakest point in an aerial setup is the structure you are hanging from. You can expect to impose **5-10 times your body weight** on the aerial apparatus & rig. For example, if you weigh 130lbs, you will apply 650-1,300 lbs or more to your aerial rig when practicing. If you have 2 people on the apparatus at the same time, this calculation will double. While you may weigh only 130lb (for example), the act of simply pulling up on a rigging point will exert MORE than your bodyweight on that point. Any movement on the apparatus will also exert more force than you realize.

Aerial rigging points should be rated for a minimum of 2,000 lbs.

Each additional component of your rigging system should also be rated to hold at least that amount of force as well - this applies to your apparatus (silks, hammock, lyra, trapeze, etc.) and hardware (safety-8, carabiners, swivels, shackles, quick links, straps, hitches, spansets, etc.).

Portable Rigs

The best solution for practicing aerials outside of the studio is a professionally-designed portable rig that is "rated" (tested and found to be safe) for aerial training and made by a reputable manufacturer:

[Aerial Essentials](#)

[Xpole](#)

[Vertical Art Dance](#)

[VVOLFY Metal Works](#)

[Circus Gear](#)

[Jugglegear](#)

At Home

While we may be able to help answer your general rigging questions, we strongly recommend hiring a rigger or structural engineer to inspect your structure and help you determine the safest way to rig at your home.

It is not recommended to build anything yourself, unless you hire a structural engineer who is experienced in rigging for aerialists.

Not all homes are constructed in a way that is safe for aerial arts, and you can do serious damage to yourself and your home if you attempt to create a rig point without the proper expertise.

Most ceiling hooks that screw into the bottom of a beam are not rated for human loads and are not suitable hardware to install for aerials. Exposed wooden beams are often decorative and not designed to support downward loads.

Anything that claims to be able to be rigged from a door frame for a human load to invert safely should be approached with caution.

When mounting "from a ceiling", you need a structural engineer to determine what load your ceiling type can withstand. **Ceilings are designed to hold load above them, not below them.** A wooden trussed roof comprises triangular beams that spread the load of the tiles/metal sheeting/shingles/etc. If you drill through a beam, you weaken it.

READ THROUGH THIS MATERIAL BEFORE RIGGING AT HOME:

- [Rigging at Home](#)
- [9 Reasons to Rethink Having an Aerial Point at Home](#)
- [The Dangers of Rigging in Your Home](#)
- [Installing Aerial Equipment at Home](#)
- [Installing an Aerial Rig in a Single-Family Residence](#)

Trees

Rigging from trees should be approached with extreme caution as it is much more complex than most people realize. **The short answer is don't do it.** Branches are not always as strong as they appear, and rough bark can damage your equipment. Even a small person can cause a high dynamic force when training.

Here is more information about rigging from trees:

[Can I Rig Aerial Circus Apparatus From a Tree?](#)

Landing Mats

Landing mats are super important to your aerial practice. At the studio, we do not use any apparatus without a proper mat underneath, and neither should you!

Aerial landing mats are made of foam and are designed to absorb your impact (unlike a mattress which is designed to rebound). A mattress is not suitable for use as an aerial landing mat.

When choosing your mat, also take into consideration what the floor underneath is made of. If you happen to fall outside the area of your mat, what surface are you hitting? If your mat is too squishy, you'll be able to feel the concrete/wood/ground beneath it.

8"-12" thick is standard for aerial mats, anything less is not recommended. 6' x 6' is an ideal size.

Where to purchase mats

[Firetoys](#)

[Mancino Mats](#)

[AKAthletics](#)

[Vertical Art Dance](#)

Aerial Apparatus & Hardware

The most common aerial silk is low-stretch, tricot fabric. Please consult the supplier for information on cleaning & care.

Info on how much to order: [Choosing your fabric length](#)

Reputable sources for aerial equipment

- [Aerial Essentials](#) - silks, hammock, lyra, trapeze & hardware

- [Firetoys](#) - silks, hammock, lyra, trapeze & hardware
- [Fabric Depot](#) - silks & hammock
- [Fabric Fabric](#) - floral patterned silks & hammock
- [VVOLFY Metal Works](#) - lyra & custom apparatuses
- [Circus Concepts](#) - all things aerial

Replacing equipment:

Hardware will wear at different rates based on a WIDE variety of factors. It is recommended to replace any hardware that shows 10% or more metal wear.

Soft materials such as spansets, slings, and fabric should be replaced when they show flaws such as snagging, tearing, or friction burns.

A small investment in new hardware, rigging, and fabric could be life-saving.

ORDERING FROM AMAZON:

Amazon has yet to offer ANY suitable aerial equipment. **DO NOT order any component of your aerial setup from Amazon.**

Other Options at Home

Conditioning is very important in aerial. Being able to hold yourself up is essential to any aerialist. At home, you can work on your strength and conditioning by doing push-ups, hollow body holds, planks, running, etc. There's a lot you can do on the ground without aerial equipment.

You can also practice pull ups, toe touches, and knee tucks along with many other conditioning exercises that don't have the same level of danger.

In Conclusion

At the end of the day, safety is always the highest priority. Aerial and circus arts can be dangerous and should be treated with the respect they deserve.

We urge you to do a quick calculation of the cost/benefit ratio of quality equipment vs cheap equipment vs safety. Quality aerial equipment is expensive, and our student's lives are priceless.

Always train safe and smart! Safe practice is what keeps this art FUN!