

A Guide for Understanding Portable Swing Frames

And helpful information for choosing the swing frame you need

With a section of Adult user's needs

Portable swing frames are not like playground swings

What is most obvious about a portable swing frame is that it is portable. It sets on a floor, without the stability of legs that are dug into the ground. (We are talking here of stand alone swing frames, not multi-piece play sets that are generally short and somewhat secure by the nature of the space they take up.) With portable frames much more depends on the circumstances. How much the swinger and seat weighs, what size swing frame, and how robust the swinging is very important because swinging builds momentum (see note #1) which affects the integrity and safety of the frame. A heavier swinger on a tall frame has more effect than a light person.

Some of the dynamics that affect the stability and performance of a portable swing frame

1. Combined weight of swinger and swing seat
2. Robustness of the swinging
3. Length of the swinging arc (length of rope or chain to the seat)
4. Gravitational force of the swinging (how high up they are swinging)
5. Physical set-up of the swing stand (on carpet, hardwood, tile, indoors or out, etc.)
6. Is the swinger being pushed or self-swinging

Balancing a full swinging experience with safety and stability is the main challenge for portable adult or commercial swing frames.

OK, try picturing an adult or older teenager swinging from a hook in your home with a standard 8' ceiling. Picture them robustly swinging (remove any walls they may bang into as you picture) like they are on an outdoor swing. You would clearly not want to be in their way. You would be bowled over. That is momentum. Now lower the hook just 2 feet with a seat that is 24 to about 30 inches from the floor (like a porch swing) so the rope to the seat is only about 3' feet. By adjusting just this one aspect, the whole situation changes. There isn't nearly enough rope to gain much momentum, even for a 300 Lbs. person. (See note #2 & the pictures below)

Another aspect of this is if the swinger is being pushed or is self-swinging. If you are doing the pushing then you can control the tempo. So, if it is a heavy person, you can keep them swinging inside the span of the legs to keep the swinging stable. If you let the person self-swing then you have little control. For self-swinging, the swinger needs to be aware of the limits of that particular swing stand.

We at Take a Swing have seen the myriad of problems our customers have faced over the years and we needed to address them. (Take a Swing has been making stand-alone, portable, and multi-use swing frames for over 20 years.) Depending on the design, a portable frame can be dangerous if used incorrectly. They can wobble at the top of the frame, make a squeaking noise and a messy greasy build up where swing hangers are, they may not conform to the floor and tend to rock. They can be so light weight that almost any movement can make them tip or they may just look and feel very unsafe. Also, with vigorous swinging it can slide around a slick floor (like tile or hardwood) or dangerously lift off the floor. Also, assembly can be difficult and time consuming.



You can get an idea here. Even little kids like on the left can do some damage once the swinging momentum has built up.

The girl on the right can get it swinging, but not with a lot of force.



[Note 1] I am using 'the amount of momentum' as a catchall for the force that is on moving seat

[Note 2] This is why we made our original heavy-duty model **The VLF** not so tall, giving the swinger a full swinging experience but with less momentum to keep the frame stable.

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What to purchase?

There are many different swing frames on the market today and many other ways to get some swinging including throwing a rope over an outstretched tree branch. Let's narrow it down by examining your situation, which is especially important for portable frames.

swinging: slow therapy style or very robust, **How** big are the people swinging, for now and in the future? **How** much space do you have (12' wide x 16' front to back is a general minimum). **How** often will the stand need to be taken down or moved? **Do** you want the stand to feel solid and be safe?

We, at Take a Swing, set out to develop a swing frame for adult and commercial clients. It needed to be heavy and heavy weight instead of large and space taking. I wanted it to support 600 swinging Lbs., while able to accommodate a motorized wheelchair, platform, and any size user.

When put together it would feel sturdy like a rock for vigorous swinging helping the user to capture that split-second of weightlessness which is so much part of the beauty of swinging. The Swing All is all that. Stability is an understatement.

Other possibilities

Many portable frames are light in weight, made to set up or take down easily, but are, by nature (or physics) less stable. Sometimes I recommend the use of a ceiling mount system. If your therapy area has a sturdy beam, then a ceiling system can work very nicely so you don't have 4 legs in the middle of the room. However, with a ceiling beam that is way up there, like 12' feet or higher, you are losing most of the swinging action. The seat moves back and forth but without much lift like real swinging. The seat rope is too long unless the swinger is really pushing it. Also, will the frame be mostly outside? I usually tell folks who ask, 'If it's for outdoors then get one made for outdoors with extra long legs to be dug into the ground.

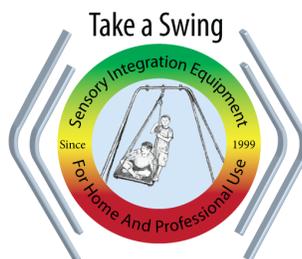
However, if it is a portable frame you need, then which one? There are numerous swing frames that can support 150 to 250 Lbs. Just being able to hold or minimally swing someone may not be what you need. In many situations, being able to seriously swing is key. Which is why we developed our adult/commercial model swing frames, the HD-120, the VLF, and our new space saving Swing All. **Here are some issues for vigorous swinging and why we developed our heavy-duty swing frames.**

As the momentum of swinging builds, much of the physics goes against a portable (especially a lightweight) frame's ability to stay stable. It is being pushed up, down, and sideways. The frame is flexing causing extra tension. It is being lifted off the floor, and it is moving around the floor. The heavier the swinger the more unstable most frames will feel. Vigorous swinging of a heavier person will need a sturdier frame, as will a 150 lbs. teenager who really wants to swing away. Other adults who need only slight motion can do well with a light duty frame. The problem with light-duty frames is they are light, look light-duty, and can't handle swinging outside the span of the legs. Many swing frames can gently swing a teen or adult but forceful swinging can make the frame shift around the floor. A tall frame, 8' or over, will be more top heavy. The longer rope to the swing seat will add extra moving force (momentum) putting stress on the swing frame and making it visibly less stable.

Our new **Swing All**, along with the **VLF** and **HD-120** are made for adults and commercial environments. It is substantial, has a small footprint, is heavy-weight, and built to take weight and heavy use well beyond it's stated limits. To me, overbuilding (using larger, higher grade components has made it safe and stable for all users.



Hopefully this short guide will help with your purchasing decision.
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Written by Thomas Kass of Take a Swing. Who has been building, using, testing, and getting customer feedback for over 20 years. All rights reserved. Duplication for educational purposes is allowed