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JOURNAL ARTICLES

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## History and Use of Stall Bars

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Stall bars are an excellent tool for developing strength, conditioning, and flexibility. A set of stall bars looks like a wide ladder, typically about three feet wide and eight feet tall, with round steps, mounted to a wall. Good stall bars are heavy and robust, and they are made to handle any person or activity without failing. They are valuable to athletes, gymnasts, physical therapists, military and police personnel, martial artists, weightlifters, and to anyone who wants more function than the “all-in-one” fitness machines can provide. Over 100 years ago, stall bars were common equipment in YMCA and college, high school, and private gyms, but their popularity waned during the middle of the last century. However, growing health consciousness, along with the popularity of gymnastics, has brought about a renewed appreciation for stall bars.

In the late 1700s to early 1800s, the word gymnastics was used to mean physical education and development generally, rather than to describe a specific sport. Johann Guts Muths, who is sometimes called the grandfather of modern gymnastics, started a new movement in physical education for school-age boys and young men in Germany and published a book titled *Gymnastics for Youths* in 1793. He built a 20-foot-high wooden frame outdoors for climbing, and suspended climbing ropes, a rope ladder, and a climbing pole from it. He had a wooden ladder that was used to climb to the top of the frame when needed. You can imagine that some of the youth did things on the ladder other than simply climb it. That ladder was a forerunner of stall bars.

Frederick Ludvig Jahn, a younger contemporary of Guts Muths, knew that strong, healthy young men were necessary for the well-being of his native Prussia. He



*A wall of stall bars with young men taking lessons on how to use them.*

*Minneapolis, MN, YMCA, circa 1892-1910 (Property of the Kautz Family YMCA Archives, Minneapolis Collection, record 000394, used with permission)*

copied Guts Muth’s wooden climbing frame, enlarged it, and made the ladder an integral part. Exercises were then developed for the ladder, which helped shape the development of the apparatus. For the most part, although the ladders were not perfectly vertical, some of the exercises were the same as those later used on stall bars. Although Jahn’s gyms were still located outdoors, soon buildings were modified to serve as indoor gyms and new gymnasiums were built. As time went on, ladders were permanently fastened to the walls, creating primitive stall bars.

Concurrently with Guts Muth and Jahn, Per Henrik Ling, a Swedish scholar and athlete, started a physical education movement in his country. As Ling, who suffered from arthritis, was taking fencing lessons, he noticed that physical activities had a wonderful therapeutic effect on his arthritic arm. This observation motivated

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an interest in the therapeutic effects of exercise, and he became a student of anatomy and physiology. Ling believed that physical exercise must be based on the laws of the human system and must influence both the body and the mind. In the early 1800s, when Napoleon became a threat to Sweden and had reduced the size of the Swedish empire, the Swedish king supported Ling's idea to establish a physical training institute as one pathway to building up the nation's military strength. Ling started the Royal Gymnastics Central Institute, where he developed gymnastics to an art that became known as the Swedish system. In his work in the gymnastics institute, he invented not only stall bars but also the Swedish box that was the forerunner of the vaulting horse and other gymnastics apparatus.

The vertical, permanently mounted gymnastics ladder used in Germany and elsewhere, and Ling's stall bars, which were developed nearly simultaneously, quickly evolved into the type of stall bars commonly used in high school and college gymnasiums, private gyms, and YMCAs in the late 1800s through middle 1900s.

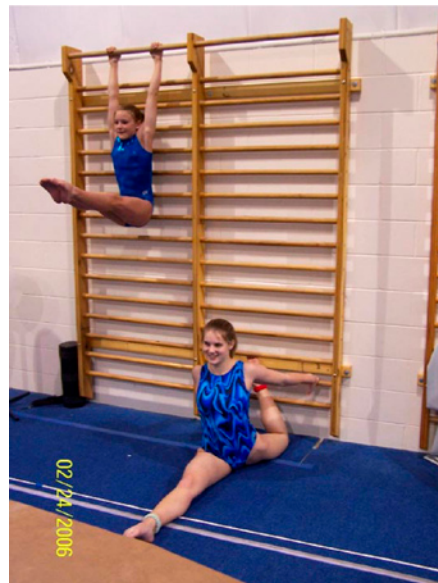
Stall bars were also used in the medical field. The U.S. Army had a professional service of physical therapists that, from World War II into the early 1960s, used what became called the Therapeutic Gymnasium. Among the typical exercise equipment found in these gyms were stall bars. Even today, stall bars are widely used in physical therapy.

Stall bars have made a comeback in recent years. In her 2003 Beginning Stall Bars video, Tammy Biggs, a USA Gymnastics Women's National Team coach, states, "In other countries, everyone has these [stall] bars.... If you put them all along your wall, you can have your whole team do flexibility and conditioning" and dramatically increase their competition scores as a result. Today, stall bars are used for a variety of exercises (chin-ups and pull-ups, leg lifts of different types, and "flagpole" or sideways handstands, to name a few), and they can be tailored to a variety of activities and purposes.

Here are some examples of exercises you can do to get started on stall bars. First, simply hanging from the stall bar is a good, gentle warm-up to stretch the spine. Hang, facing outward, for as long as you can, and relax, with toes pointed down. Next, the stall bar can be used to stretch the back muscles. Face the stall bar, standing approximately three feet away. Bend forward with straight legs and straight back and arms held straight out

in front of you. Hold on to the bars to keep balanced. Lower your back until it is horizontal, or parallel to the floor, and straight. Try to keep your legs straight. Your arms should be holding onto a bar in a horizontal position, parallel to the floor. Now move your feet in toward the stall bar until your center of gravity wants to pull your body away from the bar. Continue to move your feet in toward the stall bar as far as you can and still keep your feet firmly anchored to the floor without slipping. This stretches your back. Count slowly to 25, or quit earlier if your back starts to burn or hurt. Gradually keep working at this until you can sustain through a slow count of 25. At the end of a workout, come back and do another relaxed hang from the stall bar. This time, face the stall bars and hang, relaxed, with toes pointed down. Hang as long as you can.

Another excellent exercise on the stall bar is the leg lift. Hang from the stall bar, facing out with palms out while grabbing a bar, toes not touching the floor. Bend the legs at the hips, keep the legs straight, and lift them to horizontal. Maintain a static hold for at least ten seconds. You can do one leg at a time or both legs at the same time. A variation is to bend at the knees into a tuck as you bring the legs to horizontal, or all the way in to the chest. Another, more difficult, variation is to bend both legs upward, almost vertical, and shape your body into a "V." For conditioning with any of these leg lifts, hold the position for at least ten seconds, relax, then do it again. For developing strength, do the exercise repetitively, holding for just a few seconds each



## Stall Bars (continued...)

time. These exercises strengthen the back, abdominal, leg, and other muscles tremendously. To add even more to the horizontal or vertical leg lift, spread your legs as wide as you can and either hold, for conditioning, or do reps, for strength building.

Another good abdominal-building exercise is to sit on the floor with your back against the stall bar. You can then move your lower back four to five inches away. Lean your shoulders against the stall bar, and reach behind and grab the bar that is approximately even with the top of your head with palms up. Then do a leg lift with straight legs and hold it so that no part of the lower leg or feet is touching the floor. The legs should be about three to five inches above the floor. You can also lift your legs up higher, bending at the knees, and try to touch your chest. When doing the high lift with bent knees, you can do it repetitively rather than hold as on the leg lift.

Gymnasts use the stall bar, among other things, to stretch their leg muscles and make them more flexible. They go into a split, facing away from the stall bar, with the leg nearest the bar bent at the knee and the foot hooked into a bar. They hold the position, and then change legs. Try it if you can, but don't force it, or you may strain or tear a muscle or ligament.

Another exercise to strengthen the legs and knees is to hang facing the stall bars, then lift the lower legs at the knees and hold, or do it repetitively, holding for a few seconds. Do this exercise with slow, controlled movement, without snapping the knees. This is excellent for people with knee problems.

Stall bars like the ones in the photos in this article are available from Norbert's Athletic Products, manufactured by my company, Visions in Wood. They are built with strong and flexible American ash and hickory and are designed to withstand vigorous and continuous use.

