

Rehabilitation Gymnasiums VS Commercial Gymnasiums

Strength & Conditioning and Physical Rehabilitation: Specialist Gymnasiums vs. Commercial Gymnasiums

Text: Leandro Camacho, Manager Tukes Student Gym, Institute for Sports Research

"Different types of gymnasium? Aren't they all the same... weights, cardio machines, etc.?" Well the answer is yes and no. YES, there are different types of gymnasiums and NO, they are not all the same. We all have a pretty good idea of what the run-of-the-mill commercial gym is all about. We are also familiar with cardio machines, selectorised machines, free weights, spinning studios, etc. So how do Strength & Conditioning and Physical Rehabilitation gymnasiums differ?

It comes down to the fine line between generalists and specialists. Generalists tend to know a little about a lot. Specialists, on the other hand, know a great deal about a narrow field. When it comes to sport, taking a specialist approach is important since being knowledgeable about specific aspects of physical conditioning is essential in optimising the body's capacity. Here is an overview of the advantages provided by specialist training gymnasiums.

Strength & Conditioning Gymnasium

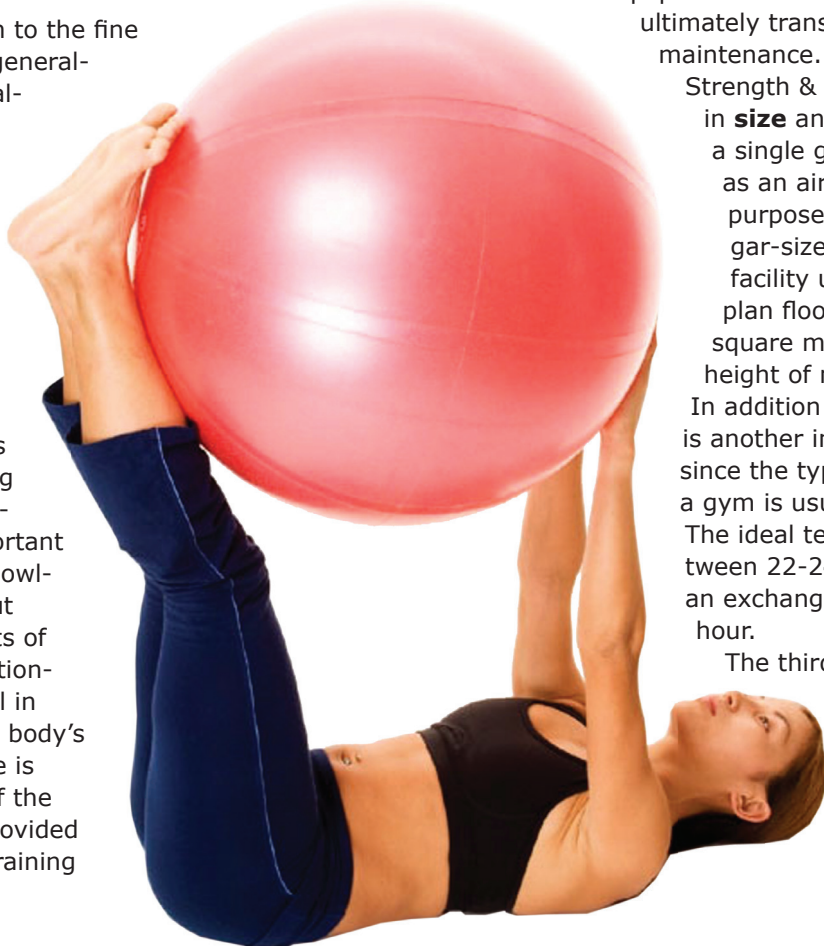
Text: Ignatius Loubser, Head Strength & Conditioning specialist hpc

Normally when people think of a gym, an image of one of the big commercial fitness centres or franchises springs to mind. But strength and conditioning facilities are not like any of those gyms. Rather, they challenge conventional "wisdom" and operate according to a different set of rules. In a commercial gym you're likely to find expensive, glossy equipment that is geared to be aesthetically pleasing and to make you feel that your membership fee is at least being well spent. Strength & conditioning gyms adopt a different philosophy. There you'll find less expensive equipment and more free weights, which ultimately translates into very little maintenance.

Strength & conditioning gyms vary in **size** and could be as small as a single garage or as spacious as an aircraft hangar. For our purposes, let's keep the hangar-sized gym in mind. Such a facility usually has a large open plan floor of about 500 - 1500 square meters, and a ceiling height of no less than 4.5m.

In addition to space, **ventilation** is another important component since the type of training at such a gym is usually of high intensity. The ideal temperature range is between 22-24 degrees Celsius with an exchange of 2 atmospheres per hour.

The third (and probably most significant) feature of a Strength & Conditioning gym is the **equipment**. Here is a list of what you should look for:



- Weightlifting platforms
- Weightlifting bars
- Bumper plates ranging from 0.5kg-25kg per plate
- Power racks and half racks
- Adjustable benches
- Adjustable boxes for box and depth jumps
- Jump stretch bands
- Chains
- Grapplers
- Tendo units / Myo test pro units (used to measure power and speed in the lifts)

There should also be enough space for a **slow movement area**. This is where you would use racks, benches, dumbbells, barbells and kettlebells. It is important that the area be large enough to accommodate a large team or group. Another important cog in the wheel is a **body weight training area**. Here you'd find a jungle gym/suspension training frame, glute/ham developers, reverse hyper extension machines, hyper extension benches and the like. Space should also be set aside for speed and **agility training**. Here's a checklist:

- 4-8 Lane tartan track (80m x 1.0m / lane);
- 250 square meters area for agility drills / quickness drills / plyometric drills / acceleration and deceleration drills / anaerobic endurance work (like "suicides");
- Equipment:
Hurdles, Rope ladders, Mini hurdles
Athletics hurdles, Cones, Sleds / speed resistors / speed releas ers, etc. and Tyres / sledge hammers.

Then there is the **pre-habilitation** area, which is another open space with softer flooring that requires the following equipment:
Swiss balls, Bosu balls, Medicine balls, Foam rollers, Balance pads and Thera-bands

The **cardiovascular area** will be much smaller than in a commercial gym and will consist of the following:

- Non motorised wood way curve treadmills
 - Rowers (Concept II)
 - Cycles – upright
 - Cycles – recumbent (rehab)
 - Versa climber
- This area is used for cross training and endurance training at low and high intensities.

Ultimately, the S&C gym will have a few things in common with a commercial gym. All gyms need

water fountains, wall clocks, a music centre and proper lighting (it is important to let in as much natural light as possible. Motivational posters along the walls are optional. But what a normal gym won't have is a centre where doctors, physiotherapists, biokineticists are on call.

Physical Rehabilitation Gymnasium

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The main difference between a physical rehabilitation gymnasium and commercial – and strength & conditioning gymnasiums – is the exercise focus and the target market. Physical rehabilitation gymnasiums focus primarily on rehabilitation and accommodate patients recovering from an injury, illness or disease. This may include heart disease, diabetes, sports injuries, joints replacements, etc. Per definition, rehabilitation is defined as a treatment or treatments designed to facilitate the process of recovery from injury, illness, or disease to a functional state of activity.

Physical rehabilitation gymnasiums may be found in a variety of settings including clinical and office practices, hospitals, nursing homes, sports medicine clinics, tertiary institutions and some health maintenance organizations. They usually house a team of medical practitioners that use exercise as a rehabilitation technique, such as biokineticists, physiotherapists and/ or occupational therapists. These gymnasiums are specifically designed to allow therapists to progress individualized treatment programmes in a controlled environment. It is important that such a facility should have the necessary exercise equipment and also adequate space for functional training techniques. Clients using rehabilitation gymnasiums are usually referred to as "patients" and seldom train unsupervised. They are always assisted and supervised by a qualified therapist registered with the Health Professions Council of South Africa (HPCSA).

The exercise equipment used for physical rehabilitation includes equipment found in commercial gyms such as stationary bicycles, treadmills, adjustable pulleys, and free weights, as well as rehabilitation specific equipment such as isokinetic machines, exercise tables, mats, walking aids, practice stairs, and parallel bars 🏊