

Facility Organization and Risk Management



General Aspects of New Facility Design

- Forming a committee of professionals is the first step in planning a new strength and conditioning facility.
- Predesign phase
- Design phase
- Construction phase
- Preoperation phase

General Aspects of New Facility Design

- Predesign Phase – usually requires 25% of the total project time (6 months). Greatest priority is creating a needs analysis or assessment. A feasibility study is conducted to determine costs, facility location, programs of interest.
- Design Phase – may require 10-12% of the total project time (~ 3 months). Work with the architect to finalize blueprints, include equipment specifications, spacing is designed to be user friendly, facility is designed to provide easy access to all athletes.

General Aspects of New Facility Design

- Construction Phase – normally 50% of total project time (about 12 months). Deadlines must be set and adhered to.
- Preoperation Phase – also called the start-up phase requires about 15% of total project time (3-4 months). Focuses on staffing considerations.

Existing Strength and Conditioning Facilities

- Strength and conditioning professionals often assume responsibility for an existing facility. The focus is on improving and reorganizing to meet current needs.
- The strength and conditioning professional should assess existing equipment based on the needs of all athletes and teams that use the facility.

Assessing Athletic Program Needs

- How many athletes will use the facility?
- What types of specific strength and conditioning training does each athletic group require (e.g. circuits, machines, free weights, Olympic lifts, plyometrics, agility)?
- What are the age groups of the athletes using the strength and conditioning facility (e.g. youth, adult)?
- What is the training experience of the athletes using the facility (e.g. novice, intermediate, advanced)?
- When will strength training fit into each athletic team's schedule (e.g. early morning, late afternoon, early evening)?
- What repairs and adaptations to equipment must be made to meet athletes needs?

Designing the Strength and Conditioning Facility

- Location – ideally located on the ground floor
- Supervision Location – ideally should be centrally located
- Access – minimum width for doors 32 in, emergency exits must be clearly visible with appropriate signage.
- Ceiling Height – especially in platform areas should have 12 to 14 ft of clearance from low hanging items.
- Flooring – carpet or rubberized flooring.
- Environmental Factors – proper lighting, temperature, humidity, air circulation, sound levels.
- Electrical Service – grounded 110-V and 220-V.
- Mirrors – should be at least 20 in off the floor.

Designing the Strength and Conditioning Facility

- Other Considerations
 - Drinking Fountains
 - Restrooms
 - Telephones
 - Signage
 - Bulletin Boards
 - Storage Room

Arranging Equipment in the Strength and Conditioning Facility

- Generally 2 accepted methods for organizing the strength and conditioning facility.
 - Creating strength training areas that emphasize different body parts (e.g., shoulder area, leg area, back area)
 - Creating training areas according to types of equipment. (e.g., free weights, resistance machines, aerobic machines, stretching mats)

Safety and function are top priorities when determining equipment placement.

Arranging Equipment in the Strength and Conditioning Facility

- Equipment Placement
 - tallest pieces of equipment should be arranged along walls
 - power exercises should be placed away from mirrors, windows, exits, and entrances.
 - Barbells and dumbbells placed minimum 36 in between bar ends.
 - Weight trees placed in close proximity to plate loaded equipment, while maintaining 36 in separation.
 - Tall pieces of equipment may need to be bolted to floor.
 - Equipment should be placed at least 6 in from mirrors.

Arranging Equipment in the Strength and Conditioning Facility

- Traffic Flow – should be around the perimeter of each area. Also should be at least one walkway that bisects the facility. An unobstructed 36 in wide pathway is mandated by federal law.
- Stretching and Warm-Up Area – 49 ft² area per athlete should be allotted. A larger area is needed if partner stretching is emphasized.
- Circuit Training Area – all resistance machines and equipment must be spaced at least 24 in and preferably 36 in from one another.

Arranging Equipment in the Strength and Conditioning Facility

- Free Weights – olympic bars should be spaced 36 in between ends. The area for one free weight station should accommodate 3-4 people.
- Olympic Lifting Area – should accommodate 3-4 people. Perimeter walkway around platform should be 3-4 ft wide.
- Aerobic Area – requires 24 ft² for bikes and stair machines, 45 ft² for treadmills, these numbers include the needed space between machines.

Maintaining and Cleaning Surfaces

- Scheduling frequent maintenance and cleaning ensures safe training, protects investments, and maintain the strength and conditioning facility's appearance.
- Flooring – inspect daily, swept, mopped, vacuumed.
- Vertical Surfaces – cleaned, cracked mirrors replaced.
- Ceilings – dust fixtures and attachments regularly.
- Environmental Factors – prevent mold, mildew, and rust

Maintaining and Cleaning Equipment

- Aerobic and Anaerobic Fitness Area
- Resistance Machine Area
- Rehabilitation and Special Population Area
- Body Weight Resistance Apparatus Area
- Stretching Area
- Free-Weight Area
- Lifting Platform Area

Scheduling the Strength and Conditioning Facility

- Seasonal Priority and Peak Hours
 - Athletic teams that are in-season normally have priority over off-season teams in the facility schedule.
 - Less time allotted for in-season programs than for off-season programs.
 - 2:00 to 6:00 p.m. is usually peak time in the strength and conditioning facility, especially for in-season teams.
 - Another popular time block for facility usage at universities is 6:30 to 8:00 a.m. before athletes attend morning classes.

Scheduling the Strength and Conditioning Facility

- Group Size
 - In some situations it is not feasible to schedule an entire team to use the facility as one group
 - Athletes can be scheduled by position or divided into specialty groups.
 - Groups can also be combined according to team size.

Scheduling the Strength and Conditioning Facility

- Staff-to-Athlete Ratio
 - Junior high strength and conditioning facilities should not exceed a 1:10 staff-to-athlete ratio.
 - High school facilities should not exceed a 1:15 ratio.
 - Facilities that serve athletes older than high school should not exceed a 1:20 ratio.
 - Another recommendation is that facilities not exceed a 1:50 staff-to-athlete ratio.

Litigation Issues

- Common Legal Terminology
 - Liability – a legal responsibility, duty, or obligation.
 - Standard of Care - what a reasonable and prudent person would do under similar circumstances.
 - Negligence - failure to act as a reasonable and prudent person would under similar circumstances.
 - Assumption of Risk - knowing that an inherent risk exists with participation in an activity and voluntarily deciding to participate anyway.

Litigation Issues

- Supervision – 80% of all court cases dealing with athletic injuries deal with some aspect of supervision.
- Instruction - Emphasizing safety and proper technique rather than the amount of weight lifted helps to reduce injuries and therefore liability exposure.
- Medical Clearance – Vital athletes receive pre-participation physical examination. It is the responsibility of the sports medicine staff to allow the athlete to begin formal involvement in the program.
- Emergency Care Plan – Document that details the proper procedures for caring for injuries. All personnel must know the plan.

Litigation Issues

- Items typically in Emergency Care Plan
 - EMS activation procedures
 - Names and telephone numbers of individuals to contact
 - Address of facility to give to EMS
 - Location of exits
 - Location of emergency supplies
 - Designated personnel to care for injuries
 - Plan of action in case of fire, tornado, etc.

Litigation Issues

- Record Keeping – Records should be kept of cleaning and maintenance, safety procedures, manufacturer's warranties and guide-lines, assumption-of-risk forms, medical waivers and clearance forms, personnel credentials, professional guidelines, and injury report forms.
- Liability Insurance - It is a good idea for strength and conditioning staff members to purchase professional liability insurance, especially if they are not covered under the facility policy.

Litigation Issues

- Product Liability - refers to the legal responsibilities of those who manufacture or sell products if a person sustains injury or damage as a result of using the product.
- Two key considerations determine whether the manufacturer or seller is liable
 - Changing the product or allowing it to deteriorate from the condition in which it was originally sold
 - Using the product in a way other than that intended by the manufacturer

Litigation Issues

- **Product Liability steps to avoid injury**
 - Use equipment only for the purpose intended by the manufacturer.
 - Be certain that equipment meets existing professional standards and guidelines.
 - Do not modify equipment unless such adaptations are clearly designated and instructions for doing so are included in the product information.
 - Buy only from reputable manufacturers.
 - Apply all warning labels that accompany a new equipment purchase.
 - Continually inspect equipment for damage and wear that may place an athlete at risk for injury.
 - Do not allow unsupervised athletes to use equipment.