

*APPENDIX A5*  
**PORTABLE SOCCER GOAL SAFETY**

This program addresses moveable/portable soccer goal safety, particularly full size or near full size goals. Soccer goals have caused dozens of deaths and hundreds of injuries when falling over. The incidents are linked by a single trend: **the goals were not properly secured to keep them from tipping.** Some were felled by wind, others from persons climbing on or hanging from the goals, and a few collapsed because they were weakened by climbing or hanging from them. Many of the goals were not even setup for use in a game.

There are approximately 500,000 soccer goals in the United States, and they were built by a variety of manufacturers, including many homemade goals. Typically goals weigh between 150 and 500 pounds, which is the reason they can cause such serious injuries. The design requirements are quite strict and should include a backstay that acts as a counterbalance to reduce tipping. The diameter of the uprights and cross bar of regulation goals are spelled out by FIFA, and there is an ASTM counterbalance standard which stipulates the amount of force (30#) the crossbar may produce at a point 1 foot above the ground. This weight limit assumes a person struck by the crossbar may be injured, but likely not killed. Securing portable goals is the best method to ensure they stay upright and do not fall over.

Keep the players on your fields safe by following the guidelines on soccer goal safety.

A. **Goal Safety Policy**

Any coach who participate in practice or a game where the goals are not securely anchored shall be fined not less than \$200 and suspended for a minimum of not less than one (1) calendar year from the date of the practice or game involved. In the event the goal is not securely anchored, the entity (team, club, league, state) that has primary responsibility for the field or event upon which the unsecured goal is situated shall be fined \$1,000. Coach means the head coach, any assistant coach, trainer or any other team official present at the time of the violation. The entity against which a fine is imposed shall be in bad standing until the fine imposed is paid.

Each team shall maintain in written form a record for each team practice, in which the coach, assistant coach, trainer or other responsible person shall certify that he or she has performed a physical inspection of the goals used in the practice to verify the goals were securely anchored.

Each league shall require each club or individual team unaffiliated with a club to certify in writing that it has in place a program to ensure that goals it uses are adequately secured, that its goals have been and will be inspected by a member of the club or team prior to each game or practice. Each club and team shall further certify it has communicated to the parent or guardian of each player the dangers of unsecured goals and their responsibility to assure that goals are secure. Each league shall certify to Idaho Youth Soccer Association that its clubs and teams have complied with these requirements prior to their annual registration.

## B. **Design/Construction Guidelines**

While a movable soccer goal appears to be a simple structure, a correctly designed goal is carefully constructed with counterbalancing measures incorporated into the product. The common dimensions of a full-size goal are approximately 7.3 m (24 ft.) in width by 2.4 m (8 ft.) in height and 1.8 m (6 ft.) in depth (figure 1). The stability of a soccer goal depends on several factors. One effective design alternative uses a counterbalancing strategy by lengthening the overall depth of the goal to effectively place more weight farther from the goal's front posts (more weight at the back of the goal). A second design selects lightweight materials for the goal's front posts and crossbar and provides much heavier materials for the rear ground bar and frame members. This tends to counterbalance the forces working to tip the goal forward. Another design uses a heavy rear framework and folds flat when not in use, making the goal much less likely to tip over. Finally, after these various designs are considered, it is imperative that ALL movable soccer goals be anchored firmly in place at all times.

## C. **Guidelines for Goal Storage or Securing When Goal is Not in Use**

The majority of the incidents investigated by CPSC did not occur during a soccer match. Most of the incidents occurred when the goals were unattended. Therefore, it is imperative that all goals are stored properly when not being used. When goals are not being used always:

1. Remove the net.
2. Take the appropriate steps to secure goals such as - place the goal frames face to face and secure them at each goalpost with a lock and chain (figure 4).
3. Safety Tips:
  - Securely anchor or counterweight movable goals at all times (figure 2, 3).
  - Anchor or chain goals not in service face to face or secure structure (figure 4).
  - Fold down out of service goals.
  - Remove the nets when not in use. This reduces drag and potential for wind to tip the goals over.
  - Check structural integrity of the goals and the goal framework.
  - Ensure warning labels are in place and readable (figure 5).
  - Instruct parents, players and children not to climb or play on the goals.
  - Instruct parents to supervise their children when playing around goals.
  - Move goals carefully, using a Standard Operating Procedure that guides correct handling procedures.
  - Never allow children to participate in the moving of the goals.
  - Movable goals should always be placed on a level (flat) surface.
  - Fully disassemble goals for seasonal storage.

## D. **Safety Checklist**

The head coach of the home team is responsible for the condition of the field and soccer goals. **Inspect the goals and field before play begins.**

- Carry spare anchors for securing goals.
- Assure the goals are solid and won't fall apart during play
- Assure there are no protrusions that create an unsafe condition.
  - This includes hooks for attaching the nets.
  - Bolts in the corners and pins for the wheels.
- Assure there are no sharp or rough edges to cut or injure players.
- Ensure portable goal anchors are secure
  - Attached to the anchors that are set into the ground.
  - or
  - Threaded or screw-in anchors used for natural grass fields.
  - Extra long or additional anchors if the ground is soft or soggy.
  - Sandbags used to anchor the backstay on artificial turf surfaces.
- Make certain safety and warning stickers are in place on the goal frame.
- Assure the playing surface is free of obstructions from other sports.
- Assure the field surface has holes filled or marked.
- Assure the lines are adequate for officials to call the game.
- Remove nets when not in use to reduce the wind from toppling goals.
- Assure pegs are never used as a goal anchoring mechanism.

### **Information Points**

- Begin at a team meeting, instructing players and parents to never climb or swing from the goals. They can tip over causing serious injury or death, and it weakens the goals.
- Parents should supervise their children and keep them from climbing on the goals.
- There have been over 30 deaths from Portable Soccer Goals falling onto children.
- Many were unused goals, blown over by the wind, which were not anchored.
- Anchors should be permanently mounted into the ground and attached to the goal. When not permanent, the anchors should be a screw in type, as pegs are more easily pulled out.
- Pegs may be used to hold the goal in position but not as anchors.
- Remove nets when goals are not in use.
- Chain or secure goals face to face or lock them to a secure structure when not in use.

## E. **Standard Operating Procedure** **- Moving Portable Soccer Goals**

### **Sequence:**

1. Place wheels in the transport position and lock them into place.
2. Pick up back of goal by handles welded onto the backstay.
  - a. Use two people lifting together.
  - b. Lift with legs, not with the back.
  - c. Push like moving a wheelbarrow.
3. Set the goal to the desired location near the anchor attachment.

4. Remove pins and fold wheels out of the way.
5. Anchor the goal.
  - a. Permanent anchors:
    - 1) Open anchor box cover and connect cable to eye bolt on the goal backstay.
    - 2) Replace cover on Anchor Box.
  - b. Temporary Anchors:
    - 1) Set temporary anchors using auger or screw in type devices. Attach to backstay.
    - 2) Place sandbags in place along the backstay for artificial turf sites. Two – four 60-80 pound bags of sand or similar materials should be place across the backstay.
6. When goals are left near a field and are not in use, place the goals facing each other and chain and lock them together.
7. Remove nets from goals not in use or secured together to prevent tipping caused by wind.
8. When removing goals from the field:
  - a. Place anchor cable into the anchor box and replace cap.
  - b. For temporary anchors, remove anchor materials from the field.

F. **Making a Permanent Anchor**

Here is a rough cost estimate and brief directions for building and installation of an anchor system for portable soccer goals. Cost for one field (2 anchors) is approximately \$60.00.

1. Materials:

4 ft.	4" box tubing	\$20.00
1 ft.	5/16" steel dowel	\$ 1.00
6-8 ft.	Rebar	\$ 4.00
4 ft.	1/4" airline cable	\$ 4.00
4	cable clamps	\$ 2.00
4	spring links	\$ 8.00
2	6" round irrigation valve box	\$14.00
2	1" eye bolt	\$ 2.00

2. Instructions:

- See anchor construction (figure 5).
- Cut 4" box tubing into 2 ft. sections. Drill a 5/16" hole in opposite sides about 1-1/2" from the top end. Cut 5/16" dowel at 4" long and insert through the hole, or install a 5" by 5/16" bolt. Weld in place.
- Cut rebar into eight, 8-12" sections and weld across each side of box tubing about 2" up from the bottom (when buried these provide support to keep the anchor being pulled out of ground. Cement is a more permanent option to hold the anchor).

- Dig a 2-2.5' deep hole about 1' behind the approxi. Middle of the backstay of the goal. Insert anchor into hole and backfill over the rebar with dirt or concrete. Set valve box over the top of anchor and refill dirt around box. Pack  $\frac{3}{4}$ " minus rock inside valve box to about 2" from the top of the anchor. Cut the airline cable into 2 – 2" sections. Loop one end of the airline cable around dowel and secure the end with a cable clamp, creating a loop around the dowel. Create loop on other end of cable, insert the spring link and attach the cable clamp or clip the spring link onto the cable after forming the loops.
- Weld the 1" eye bolt onto the center of the backstay of goal for the clip link to attach.
- Using a drill or saw cut into valve box cover, creating a hole or slot big enough to allow the cable and spring link to pass through. Pop the valve box cover on after setting up the anchor system.
- The cable may be stored in the valve box when the goal is removed.
- Keep valve box cover in place to prevent tripping hazard.

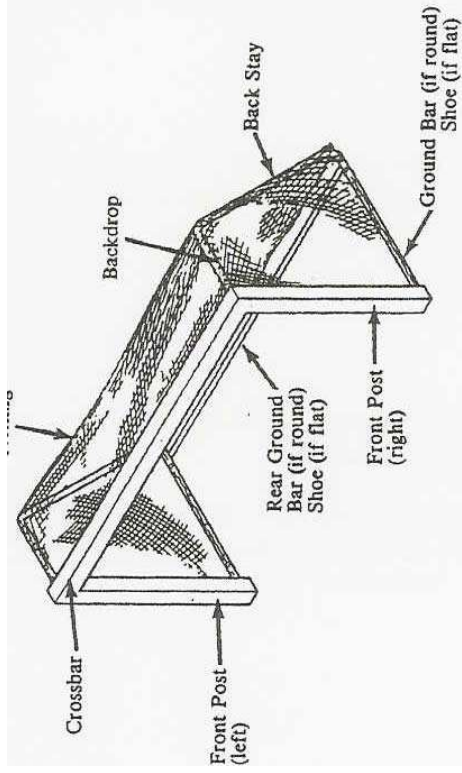


Figure 1: Components of a Movable Soccer Goal

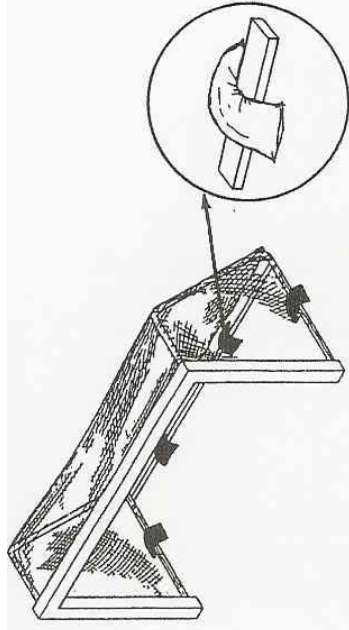


Figure 3 : Sandbag Method of Anchoring

(Rear) Ground Bar/Shoe

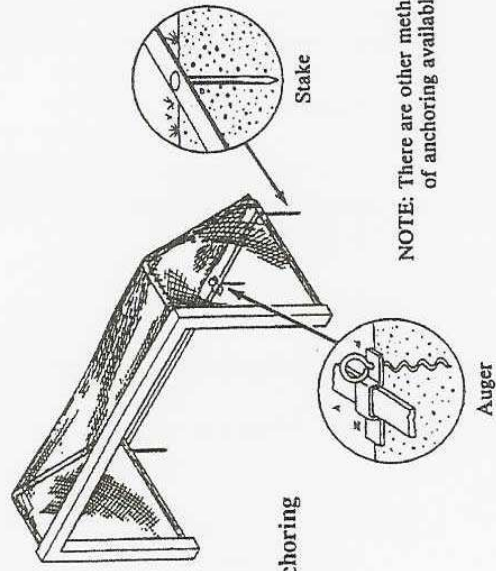


Figure 2: Goal Anchoring

NOTE: There are other methods of anchoring available

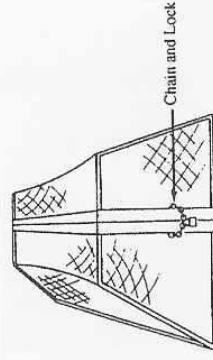


Figure 4 : Join Goal Faces and Lock Together Using Chain and Lock

**▲ WARNING**



Never climb or hang on goal.  
Goal can fall over causing serious injury or death.

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Figure 5. Warning Labels