

# Technology Associates

Forensic Engineering Experts – Ph (800) 358-9909 - Fax (888) 358-9901

## SPORTS, GYMS & PLAYGROUNDS

Recreation, sports, and gym equipment are subjected to large dynamic forces and must be designed to support these loads and protect users from unintentional hazards. Adequate instructions and warnings may be required if their assembly and proper use are not obvious. There are also issues associated with safety, adequate supervision and maintenance of gyms, swimming pools and playgrounds to assure that they are used properly and do not become dangerous due to either misuse or normal wear and tear. Issues associated with such accidents require an understanding of biomechanics, human factors, safety, dynamics and structural engineering.



### Expertise

We have extensive safety experience in many aspects of playground, recreational and gym equipment including:

- Developing instructions and warnings for gym equipment set-up and use
- Design of exercise equipment
- An extensive library concerning playground and gymnastic safety

### Questions Answered

Through scientific analysis, we can help you answer pertinent questions such as:

- Was the child's home gym equipment defective in its design?
- Was the trampoline activity adequately supervised?
- Were the instructions on the sports equipment package effective to insure its proper and safe use?

### Case Examples

#### Public Playground Accident:

A 5-year old girl was swinging from the monkey bars at a town park when she lost her grip and fell, severely injuring her pelvis. We inspected the play equipment and researched playground accident statistics throughout the US. This led us to determine that the subject equipment contained a number of accident related safety violations such as: an inadequate equipment "use zone", dangerous protrusions and no slip-resistant rungs. Our report convinced the park authorities to rapidly settle this matter.

#### Basketball Court Accident:

A basketball game was being played on a court that had walls that were only 2 feet away from the boundaries underneath the baskets. To reduce the possibility of injury, 2" thick, bright colored pads were provided on these walls. An unguarded player who had the ball charged the basket, jumped, and impacted the wall. We argued that the player's injury resulted from his intentionally jumping into the highly visible wall, which had state-of-the-art protection mats, resulting in a reduced settlement.