

# **C.L.E.A.R. Scoliosis Institute**

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## **Position Statement on Sports and Physical Activities for Adolescent Idiopathic Scoliosis (AIS) Patients undergoing CLEAR Treatment**

**This information is intended for Adolescent Idiopathic Scoliosis Patients undergoing CLEAR Treatment ONLY. This information is not intended to apply to all patients with scoliosis.**

**These guidelines are intended only for the consideration of the adolescent patient and their parents, who are considering or currently undergoing CLEAR treatment, and their CLEAR certified doctor of chiropractic.**

**Adult scoliosis patients may benefit from the General Guidelines regarding Sports and Activities, presented on *Page Three*.**

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## Primary Points

**Point One:** The CLEAR Scoliosis Institute believes that participation in sports and physical activities plays an important role in developing physical, intellectual, and social well-being in adolescents. It is the goal of the CLEAR Scoliosis Institute and CLEAR-certified doctors of chiropractic to support adolescents in encouraging healthy and safe participation in these activities.

**Point Two:** Participation in sports and physical activities should be limited or restricted only when these activities might negatively influence health status or the potential health benefits provided by CLEAR Scoliosis Treatment, in the opinion of the CLEAR-certified doctor of chiropractic who is currently or will be managing the adolescent patient with idiopathic scoliosis.

**Point Three:** The patient must demonstrate good compliance (defined as scheduling and keeping prescribed appointment sessions and following their prescribed home rehabilitation program) in order to participate in sports and physical activities. Non-compliant patients should be strongly discouraged from participation in these activities, as this may pose a risk to their health status and the potential benefit of their treatment plan.

**Point Four:** The patient's CLEAR-certified doctor of chiropractic must be consulted and informed regarding any and all sports and physical activities (including Physical Education classes that the patient participates in at school) that the patient will be participating in, **prior** to participation in these activities. Failure to disclose this information to the CLEAR-certified doctor of chiropractic may jeopardize the results of the patient's treatment plan.

**Point Five:** If restricting or limiting sports or physical activities is deemed necessary by the CLEAR certified doctor of chiropractic in charge of managing the patient, these recommendations **MUST** be followed by the patient. Failure to follow these recommendations should be considered as potential grounds for dismissal of the patient from care.

**Point Six:** If restricting or limiting sports or physical activities is deemed necessary by the CLEAR certified doctor of chiropractic in charge of managing the patient, specific spinal isometric exercises and other home rehabilitation therapies should be considered as a possible replacement for these activities, and alternative sports and physical activities that **ARE** deemed acceptable by the CLEAR-certified doctor of chiropractic should be suggested as potential substitutes.

**Point Seven:** Patients must be evaluated on a case-by-case basis; certain sports or activities which may be permissible in one individual may be restricted or limited in another.

**Point Eight:** CLEAR-certified doctors of chiropractic should always support their patients by providing them and the involved authorities with the required documentation and/or healthcare information to justify limitation or restriction of certain activities upon the request of the patient's parents or legal guardian(s).

**General guidelines regarding sports and activities:**

*(This information may also be helpful to adult scoliosis patients.)*

**The CLEAR Scoliosis Institute recommends that patients undergoing treatment limit or restrict their participation in the following sports and activities:**

Collision sports: football, hockey, rugby, full-contact martial arts, cheerleading, gymnastics, pole vaulting, lacrosse

One-sided or rotational sports and activities: golf, tennis, bowling, shot put or javelin, string or wind instruments such as flute or violin

Repetitive, compressive sports or activities: long-distance running, horseback riding, off-road cycling, triple jump or long jump, weight lifting, drum line or marching band

Sports which may cause spinal trauma: butterfly swimming, martial arts, downhill skiing

Exercises which compromise the health of the spine: sit-ups, push-ups, and pull-ups

The patient should avoid participation in any activities which cause or increase pain or other musculoskeletal symptoms.

Also, any competitive sports or activities which require a high-level of regular training and athletic performance should be avoided.

**The CLEAR Scoliosis Institute recommends that patients undergoing treatment are encouraged to participate in the following sports and activities:**

Swimming (non-competitive); avoid the butterfly stroke (freestyle, backstroke, or breaststroke are preferred); scuba diving and diving are also permissible

Cycling (not off-road cycling)

Walking, hiking, and sprinting (avoid long-distance running and jogging)

Aerobics, such as dance, color guard, yoga, and flexibility training

Table sports: table tennis/ping pong, foosball

Croquet, badminton, and shuffle board

Gliding-type activities such as cross-country skiing, as well as ellipticals, Nordic track, Gazelle edge, and similar exercise machines that do not involve repetitive shocks

Short-term, high-intensity exercise (burst training) is preferable to endurance training

**Guidelines for AIS patients concerning collision sports:** (such as hockey, football, rugby, or full-contact martial arts)

*Cheerleading and gymnastics should also be considered collision sports if they involve flips, tosses, jumps, or other similar activities which could potentially result in the participant falling or colliding with another individual.*

All collision sports should be discontinued during the first 180 days when an adolescent patient is beginning their CLEAR treatment.

After 180 days, collision sports may be re-introduced on a provisional basis ONLY if ALL of the following criteria are met:

- The patient is not currently experiencing any musculo-skeletal symptoms or pain, nor should they be experiencing any symptoms or pain while participating in these activities.
- The patient has demonstrated good compliance with their prescribed home rehabilitation program, in the opinion of their CLEAR-certified doctor of chiropractic.
- The patient is considered “low-risk” in regards to future progression of their scoliosis.
- The patient’s Cobb angle of their primary scoliosis curvature measures less than 30 degrees.
- The CLEAR-certified doctor in charge of managing the case has been consulted and informed of the specific nature of the activity and what traumas may potentially be involved, and has provided their provisional approval for the patient to re-engage in these specific collision sports.

If, at any time during the provisional re-introduction of activities, should the patient's health status not show continued improvement, or the patient demonstrates non-compliance with keeping scheduled appointments or performing home rehabilitation therapies, the CLEAR-certified DC should consult with the patient and recommend complete restriction of collision sports until such time as the patient demonstrates improvement in their health status and/or improved compliance.

Patients who have not yet undergone their growth spurt (typically 12 or younger for females and 15 or younger for males) should be advised to discontinue collision sports until after they have gone through their growth spurt (Peak Growth Velocity).

Patients with a larger amount of potential growth remaining should be counseled against collision sports more strongly than patients who demonstrate signs of skeletal maturity (such as completion of the Risser sign). However, Risser sign should NOT be considered an accurate assessment of skeletal maturity, as up to 2 centimeters additional spinal growth can occur after the ossification of the iliac crest. More accurate assessments for skeletal maturity include the Tanner-Whitehouse method of assessing the bones of the wrist, as well as consecutively-repeated measurements of height and/or shoe size - when the patient does not show any signs of an increase in height or shoe size for six months or longer, it can safely be assumed that growth has completed.

#### **Guidelines for AIS patients concerning competitive, high-intensity, and/or performance sports:**

*Competitive, high-intensity, and/or performance sports include activities for which the adolescent must train on a regular basis, and/or participates in organized events which hold the competing athletes to a high standard of physical performance. This includes (but is not limited to) non-impact sports such as swimming, cycling, dance, horseback riding, running, tennis, volleyball, basketball, baseball, and soccer.*

All competitive, high-intensity, and/or performance sports should be discontinued during the first 90 days when an adolescent patient is beginning their CLEAR treatment.

After 90 days, these activities may be re-introduced on a **provisional** basis ONLY if ALL of the following criteria are met:

- The patient is not currently experiencing any musculo-skeletal symptoms or pain, nor should they be experiencing any symptoms or pain while participating in these activities.

- The patient has demonstrated good compliance with their prescribed home rehabilitation program, in the opinion of their CLEAR-certified doctor of chiropractic.
- The patient is considered “low-risk” in regards to future progression of their scoliosis.
- The patient’s Cobb angle of their primary scoliosis curvature measures less than 30 degrees.
- The CLEAR-certified doctor in charge of managing the case has been consulted and informed of the specific nature of the activity and what traumas may potentially be involved, and has provided their **provisional** approval for the patient to re-engage in these specific collision sports.

If, at any time during the provisional re-introduction of activities, should the patient’s health status not show continued improvement, or the patient demonstrates non-compliance with keeping scheduled appointments or performing home rehabilitation therapies, the CLEAR-certified DC should consult with the patient and recommend complete restriction of competitive, high-intensity, and/or performance activities until such time as the patient demonstrates improvement in their health status and/or improved compliance.

Competitive sports that do not involve repetitive or excessive rotational or compressive forces (such as swimming, cycling, aerobics, sprinting, and dance) are more advisable for patients to participate in than sports which do involve such activities (including golf, tennis, triple jump or long jump, butterfly swimming, weight lifting, off-road cycling, horseback riding, long-distance running, and martial arts).

Patients who have not yet undergone their growth spurt (typically 12 or younger for females and 15 or younger for males) should be advised to discontinue competitive, high-intensity, and/or performance sports until after they have gone through their growth spurt (Peak Growth Velocity).

### **Guidelines concerning non-collision, non-competitive sports and activities:**

*This includes sports and activities such as swimming (not including the butterfly stroke); scuba diving and diving; cycling (not including off-road cycling); walking, skating, hiking and sprinting (not including long distance running); aerobics including dance, yoga, and flexibility training; table sports such as table tennis/ping pong and foosball; and, no-impact exercise such as cross-country skiing, croquet, badminton, shuffle board, ellipticals (gliding-type exercise machines), Nordic track, Gazelle edge, and similar exercise machines, as well as general Physical Education activities and musical instruments that do not involve purely one-sided motions.*

Patients participating in these sports or activities should advise their CLEAR-certified doctor of chiropractic of their participation in these activities, and consult with the doctor to ensure their chosen activities are indeed permissible.

In most cases (subject to the discretion of the CLEAR-certified doctor of chiropractic involved in the patient's care plan), no restrictions or limitations of these activities will be necessary at any point throughout the patient's treatment.

The patient should always report any pain or symptoms that are caused or aggravated by any sport or activity to their CLEAR-certified doctor of chiropractic. If patients experience any such symptoms while participating in any activity, they should always discontinue the activity immediately.

Patients with limited time to exercise should be encouraged to replace general Physical Education exercises with their specific spinal isometric exercises and other rehabilitative therapies, particularly within the first 90 days of beginning treatment.

Whenever possible, the patient should strive to maintain good posture while participating in their chosen activities. Proper deep breathing should also be encouraged, both during participation and afterwards during the recovery phase.