

United States *Luge* Association

Physical Test Standards for Selection to a USLA Team

PURPOSE: The intent of this policy is to establish a basic level of fitness for athletes that compete for a USLA sanctioned team, and to provide a mechanism for tracking an athlete's physical training development and progress.

For those athletes selected to the teams by the Team Selection Committee at the end of the competitive season, the **Physical Test Standards must be passed in the next Fall Testing Period**, for an athlete to be considered by the Team Selection Committee for selection to one of the fall teams. The Fall Testing Period runs from September 1st until five days from the departure of each respective team, or the beginning of the domestic season, if no trip is planned. Within the Fall Testing Period, three testing dates will occur.

Any Junior "C" Team Candidate, Junior National "A" and "B" Team (and Select), or Senior National "A", "B", and "C" Team (and Select) athlete falling within the age range where physical testing is applicable (15 yrs. of age and up), must pass the Physical Test Standards for his/her age. Junior Development Team athletes DO NOT have to pass the Physical Test Standards to travel with a team regardless of age. (See testing protocols for specific tests)

The Physical Test Policy will include seven to ten physical tests in addition to the start test. Each physical test and the start test will have a standard for junior women, junior men, senior women and senior men. The Physical Test Standards will be reviewed annually by the National Team Head Coach (kunstbahn) in consultation with the USOC Strength and Conditioning Staff and USOC Sports Medicine, and shall be adjusted, if need be, before the beginning of each training season. All changes and adjustments must be sent to the National Team Committee (NTC) for review and approval.

* Junior Candidate Exception: All members of the Junior National Team (and Select) must pass the Start Test to remain on the team. There are no exceptions for this group. However, any Junior Team Candidate member can decide whether to attempt to pass the start test. Passing the start test will be required if the Junior Team Candidate member (as designated in the spring selections) wishes to be considered for a competition traveling team (defined as traveling with the intent to compete in a FIL sanctioned event at the Junior World Cup level or higher). Additionally, said athletes are required to pass the Physical Test Standards prior to embarking on any non-domestic training trip (this includes Calgary and Whistler).

Testing Dates

Every athlete (including the Junior Development Team) will be required to test at all the team camps he/she attends throughout the spring, summer, and fall of each year. The **final possible test date will be the fifth day prior to the departure of each respective team. The Physical Test Standards must be passed by this time** (and have been passed within the Fall Testing

Physical Test Standards
Page Two of Three

Period), **for the athlete to be considered eligible to travel with a team.** However, if an athlete has not passed the Physical Test Standards at the time when airline tickets are purchased (generally, four (4) weeks in advance of the final test date), the athlete will be responsible for the purchase price of the ticket, and any other related costs (i.e. sled shipping) in the event the athlete does not pass the Physical Test Standards to travel with his/her respective team. Conversely, if the athlete's ticket is purchased at a later point in time, he/she will be responsible to pay for any "difference" in the ticket price from the original one purchased for all other related team members. Athletes should plan ahead and pass the physical test as early as possible in the Fall Testing Period. NOTE: In the case of one doubles teammate who does not pass the test, the doubles teammate who does not pass the test will be fully financially responsible for both teammate's airfares and other related costs.

Retesting

If any of the physical tests standards or the start test is not passed in the Fall Testing Period during the three testing dates, the USLA is not obligated to grant any additional test(s) in order for the athlete to try and pass the Physical Test Standards. If an item is not passed during the Fall Testing Period, then the athlete will retain their highest result on that item of the test performed during the Fall Testing Period and not be allowed to test that item again. If the result for that testing item is below the Physical Test Standard, then the athlete will fail the physical test. Athletes, who have not passed the Physical Test Standards in the Fall Testing Period and therefore do not qualify to travel with their respective team, must retest and pass the physical test standards by a date set down by the Team Selection Committee to qualify for possible selection by the Team Selection Committee to a team after the first half of the season has concluded.

Re-testing requests must be made in writing to the appropriate team coach (kunstbahn - generally the USLA Team Head Coach, Naturbahn - generally the Team Head Coach) at least 24 hours in advance of the test. The coach will make every reasonable effort to accommodate this re-testing request. Retesting is done at the athlete's own expense and must be done under the supervision of a qualified USLA testing administrator.

Injuries (minor)

In the event of a minor injury prior to testing, a specific test or tests may be delayed or waived until a later date. The injury must be verified by a qualified USOC or USLA medical personnel.

Injuries (chronic)

It is understood that, on occasion, chronic injuries or long term limitations may limit an individual's ability to perform or reach the required minimum result on a certain test. In that case, the Conditioning Coach (kunstbahn) or the Team Head Coach will seek out an evaluation

of the injury/limitation with a member of the USOC or USLA medical staff. Using this as a basis of opinion, the Team Selection Committee will first decide if the athlete can still perform at a level that warrants his/her remaining on the team selected. Once this decision has been made, and if the Team Selection Committee has decided to keep the athlete on a team, then the Conditioning Coach or Team Head Coach will decide whether to administer or cancel any or all of the tests. A chronic injury may require an alternate test (i.e., bike instead of run) to be used if it is consistent for the minimum standards that have been set for that particular test. This policy will not apply to minor injuries (i. e., strains and sprains) and other short-term injuries.

Doubles Athletes

In the case where one athlete of a doubles team does not pass the Physical Test Standards, it will then be considered that the team no longer qualifies to be selected to the National Team or to travel internationally. The doubles team athlete that passed the test, but now no longer qualifies, may appeal to the Team Selection Committee to travel and train with the team as a singles athlete. The Team Selection Committee is not obligated to keep the remaining doubles team member, who passed the Physical Test Standards, on any team, funded or otherwise.

Note to file - the most recent changes to this policy occurred in July of 2012

National Team Testing Protocol

A. Start Test (Team Members Only)

B. Physical Tests:

Day 1 (At the Track)

1. Standing Long Jump
2. Sit & Reach
3. 30 Meter Sprint

Day 2 (Weight Room)

1. Weighted Pull-Up
2. Bench Press

The start test is the first priority and is tested by itself at the Luge building. The other tests are given at a separate location at another time. A typical protocol would be to administer physical test Day 1 at the track immediately following the Start Test, and administer physical test Day 2 the following day in the weight room.

Start Test Protocol

1. No preliminary starts are allowed. The average of two starts is taken to establish the test score. Starts must be taken within five minutes of each other. The maximum number of starts that can be performed is 8.
2. Only consecutive starts are eligible for averaging to obtain the test score. (ex. start #1 and #2 can be averaged, but #1 and #3 cannot be averaged)
3. Sleds used for testing must be 23 kg or greater for Singles and 27 kg or greater for Doubles. If the sled being used is less than the above stated weights respectively, the athlete must add the amount of weight that the sled is light to his / her body or sled.
4. At a minimum, athletes must be within two kilograms (2kg) of **total combined weight (Sled + Body Wt. + Additional Wt. + Clothing)** allowed by FIL standards for their body weight the day of the test.
5. Helmets, speed suits, and race type booties must be worn.
6. Sleds (steels) must be on the ice a minimum of ten minutes prior to the test.
7. Athletes must take at least three paddles before the finish eye is broken.
8. Athletes must not “sit up” before the timing eye being used for the test.
9. No settle is allowed before the finish eye.
10. Double teams must pass the doubles standard for starts, and this point score is applied toward their overall total for the physical standards testing. If a double slider wishes to compete in singles, the athlete must pass the singles minimum also. If a slider passes both the singles and doubles standards for the start, then the start test with the lowest points awarded is the score that will be counted toward the total for their overall physical standards test score.
11. The start minimum must be passed to make the team.
12. The ice will be spritzed before the start test takes place, but no sooner than 10 minutes before the test.
13. All starts are performed on the center ramp in the start building
14. For Junior doubles teams, the standard to be met is taken from the age of the oldest member of the doubles team.

Physical Test Protocol

Day 1 (At the Track)

STANDING LONG JUMP

The Athlete must start with their toes behind the line. The Athlete's objective is to jump forward as far as possible. Arm swinging with a counter movement is allowed, although the athlete's feet may not leave the ground until the actual leap (i.e., no pre-jump hops are allowed). The distance taken is measured in meters (rounded down to the nearest .05 meters) from the start line to the point of the athlete that lands closest to this start line. If the athlete loses their balance and falls toward the starting line, the measurement is taken from their body part that lands closest to the start line. The athletes are encouraged to extend their legs and land on their heels and fall forward. A level, low abrasive surface with good footing (grass, gym floor) is preferred over concrete and asphalt. The better of 2 trials is taken.

SIT & REACH

The athlete must sit with bare feet against a platform (approximately 6 inches in height) and flex forward at the waist with outstretched arms as far as possible. The legs must stay extended (straight) at the knees, and no wider than shoulder width. The arms should be outstretched and the elbows locked. The feet must stay flat against the platform. The athlete must hold this flexed position for 3 seconds. The distance is measured outward in half (.5) inch increments from the edge of the platform against which the feet are touching. Any measurement falling between half (.5) inch increments will be scored to the lower increment. The best of 3 attempts is taken.

30-METER SPRINT

The athlete must start behind the line, which is 31.25 meters from the finish line and sprints to the finish. Timing eyes are placed at 31.25 and 1.25 meters, at a height of .55 meters at the start and .55 meters at the finish. The athlete should start from a standing position; no rocking is allowed. Blocks or permanently secured devices may not be used to start against. Spikes may be worn on tracks where it is permitted. The time between the two timing eyes is measured electronically to the .01 of a second. The best of 3 runs is taken, if desired.

Day 2 (In the Weight Room)

WEIGHTED PULL-UPS

This is a maximum pull-up test for as many reps as the athlete can perform with weight. The athlete will select their weight and aim for a 3 rep max. The athlete grasps the bar with a pronated (palms facing away from the body) grip, hands must be 27.5 inches or more apart. The athlete must start from the hanging position. The athlete is guided by the instructor at the abdominal level to assure that no advantageous kipping or swaying takes place. The knees may be bent or straight. Nothing may come in contact with the ground during the pull up. The athlete must fully straighten their arms and abduct their shoulder blades (a full hang) at the bottom of the motion for the pull up to count. The athlete then pulls up until the chin reaches above the level of the pull up bar. Completed repetitions are judged by the instructor. A pull up is counted when the athlete reaches the top of the motion. Only fully completed pull-ups will count. If the athlete lets go of the bar during the test, the test is assumed over. The better of 2 trials is taken, if desired. If more than 1 rep is performed a max rep chart will be used to determine the athletes max. This figure will then be used to determine a Sinclair point value (see below).

BENCH PRESS

This is a flat bench press test for as many reps as the athlete can perform. The athlete will select their weight and aim for a 3 rep max. The athlete grasps the bar with a pronated (palms facing away from the body) grip, hands must be 27.5 inches or more apart. The athlete may utilize a lift off the rack and then start from a full arm extended position. The athlete then lowers the bar to his/her chest, pauses, and returns to a full arm extended start position. Only full completed reps will count. If the spotter touches the bar during the lift, the lift will not count. The better of 2 trials is taken, if desired. If more than 1 rep is performed a max rep chart will be used to determine the athletes max. This figure will then be used to determine a Sinclair point value (see below).

SINCLAIR VALUE – Method of comparing an individual athlete's strength based on body weight and weight lifted. Bodyweight, the Sinclair number, and weight lifted (Total) are plugged into the formula and a Sinclair score is calculated.

Sinclair Formula			
MALE			
Bodyweight (kg)	Sinclair Number	Total (kg)	Sinclair Score
80	1.224432981	25	30.61082452
FEMALE			
Bodyweight (kg)	Sinclair Number	Total (kg)	Sinclair Score
65	1.157791599	25	28.94478997

Male

Sinclair Number * (A5<168.091,10^(0.845716976*((LOG10(A5/168.091))^2)),1) where A5=Bodyweight

Female

Sinclair Number * (A9<107.844,10^(1.316081431*((LOG10(A9/107.844))^2)),1) where A9=Bodyweight

The equation above is then multiplied by the weight lifted and a Sinclair score is given