

United States *Luge* Association

Physical Test Standards For Selection To A USLA Team

The intent of this policy is to establish a basic level of fitness for athletes that compete for a USLA sanctioned team.

For those athletes selected to the teams, as delineated below, at the end of the competitive season, the **Physical Test Standards must be passed within the Fall Testing Period**, for an athlete to be considered for selection to a team. The Fall Testing Period runs from August 15th until the departure of each team, or the beginning of the domestic season, if no trip is planned. **EXCEPTION:** In the event that the Seeding Races are completed prior to the end of the season, and previously untested athletes do well enough in those seeding races to qualify for a team, these athletes must pass a shortened version (***) of this Physical Test in the week following the Seeding Races to remain on that team until season's end. If said athlete does not pass the shortened version of this Physical Test, then he/she would resume being a member of the team at the time of the team selections that take place at the completion of the competitive season.

Any Junior Team Candidate, Junior National Team (and Select), or Senior National Team (and Select) athlete falling within the age range where physical testing is applicable (15 yrs. of age and up), must meet the minimum requirements 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)

To meet the minimum requirements:

- An athlete must score a minimum number of **points and pass the Static Weight Hold.**

Senior Teams	70 combined points on 7 tests - OR - 60 combined points on 6 tests (** and for natural track).
Junior Teams	65 combined points on 7 tests - OR - 55 combined points on 6 tests (No Start Test)* -OR- 55 combined points on 6 tests (** and for natural track)

- A zero may not be scored on any test.

- Senior athletes may score 5 points on only one test item (note that the start test does not include a five-point level), but the combined total of points for all test items has to be 70 (or 60 **) points or more.

- Junior athletes may score 5 points on only one test item (note that the start test does not include a five-point level), but the combined total of points for all test items has to be 65 (or 55*) (or 55**) points or more.

The minimum Physical Test Standards will be reviewed by the National Team Head Coach (kunstbahn) and the Conditioning Coach annually and shall be adjusted, if need be, before the

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beginning of each training season. All changes and adjustments must be sent to the National Team Committee (NTC) Chair for review and approval.

*All members of the Junior National Team (and Select) must take the Start Test and score at least 65 points and pass the static weight hold 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). Should any athlete in this group not choose to take the start test, or not pass the start test, then he or she must score 55 points on the 6 remaining tests and pass the static weight hold to remain on the team at his/her geographical base. Additionally, said athletes are required to score their 55 points prior to embarking on any non-domestic training trip (this includes Calgary).

** Shortened Version – The Start Test is not part of the shortened version of this test nor is it part of the test taken by natural track athletes at this time. It will not be administered and therefore can not be used to substitute for lower scores on other items of the test.

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 test date will be the day prior to the departure of each respective team. The minimums must be passed by this time** (and have been passed within the Fall Testing Period), **for the athlete to be considered eligible to travel with a team.** However, if an athlete has not passed the minimum Physical Test Score 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 minimum 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 take the physical test as early as possible in the Fall Testing Period to allow adequate time for the possibility of re-testing. NOTE: In the case of one doubles partner who does not pass the test, the doubles partner who does not pass the test will be fully financially responsible for both partners airfares and other related costs.

Retesting

During the Fall Testing Period, an athlete may take the physical test under USLA supervised conditions as many times as needed; however, after four attempts, the USLA is not obligated to grant a test in order to pass the minimum standards. If an item is not passed during

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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 resulting score for that testing item is a "0", then the athlete will fail the physical test. Senior National Team members who have passed their respective minimums, may continue trying to increase their personal testing goals as many times as they would like. Athletes who have not passed the minimum and do not qualify to travel with their respective team must continue testing to qualify for participation in seeding races or for possible selection to a team after the first half of the season.

Re-testing requests must be made in writing to the appropriate team coach (kunstbahn - generally the USLA Conditioning 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 Naturbahn 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 will decide whether to administer or cancel any or all of the tests. A chronic test 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 qualify, it will then be considered that the team no longer qualifies. 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 qualified doubles team member on any team, funded or otherwise.



USA LUGE PHYSICAL TEST Point Scale



Senior Women

Updated: June 2, 2009

EVENT	Long Jump	Sit Reach	30 M Run	Ill. Agil. Test	Pull Ups	Bench Bress	Static	
							IN. Sec.	Wt. Hold
POINTS	M		Sec.	Sec.	Sin. Value	Sin. Value	Sec.	Sec.
16	2.65*	12*	4.15*	16.5	36	95	15 = Pass	
15.5	2.60	11.5	4.20	16.65	33	92	< = Fail	
15	2.55	11	4.25	16.8	30	88.5		
14.5	2.50	10.5	4.30	16.95	27	85		
14	2.45	10	4.35	17.1	24	81.5		
13.5	2.40	9.5	4.40	17.25	21	78		
13	2.35	9	4.45	17.5	18	74.5		
12.5	2.30	8.5	4.50	17.65	16	71		
12	2.25	8	4.55	17.8	14	67.5		
11.5	2.20	7.5	4.60	17.95	12	64		
11	2.15	7	4.65	18.1	10	60.5		
10.5	2.10	6.5	4.70	18.25	9	57		
10	2.05	6	4.75	18.4	8	53.5		
5	2.00	5.5	4.80	18.5	7	50		
0	<2.00	<5.5	>4.80	>18.5	<7	<50		

START TEST	POINTS	
	Singles	Sec.
POOR	16	1.345*
FAIR	15.5	1.350
GOOD	15	1.355
EXCELLENT	14.5	1.360
	14	1.365
	13.5	1.370
	13	1.380
	12.5	1.390
	12	1.400
	11.5	1.410
	11	1.420
	10.5	1.430
	10	1.440
	0	≥1.45

For timing to the .001, when no third digit is listed, then assume that digit is a 9 (ex. 1.25 is really 1.259)

Minimum Points Needed: 70 / Plus Passing Score in Static Plate Hold
Pts. Without Start Test: 60 / Plus Passing Score in Static Plate Hold

You are Allowed to score below the minimum (i.e., the 5 point score) on only **ONE** physical test item.
 If 0 or failed is scored on any test, you do not make the team.
 < - Less Than. > - Greater Than. * - Or Better.
 Minimum Standard for each test is the 10 point score.
Minimum points to pass the test - 70



USA LUGE PHYSICAL TEST Point Scale



Senior Men

EVENT	POINTS	Long Jump	Sit Reach	30 M Run	Ill. Agil. Test	Pull Ups	Bench Press	Static Wt. Hold
		M	IN.	Sec.	Sec.	Sin. Value	Sin. Value	Sec.
POOR FAIR GOOD EXCELLENT	16	3.05*	12*	3.69*	15*	73*	165	15 = Pass
	15.5	3.00	11.5	3.73	15.15	70	157.5	< = Fail
	15	2.95	11	3.77	15.3	67	150	
	14.5	2.90	10.5	3.81	15.45	64	142.5	
	14	2.85	10	3.85	15.6	61	135	
	13.5	2.80	9.5	3.89	15.75	58	127.5	
	13	2.75	9	3.93	16	55	120	
	12.5	2.70	8.5	3.97	16.15	52	117	
	12	2.65	8	4.03	16.3	49	114	
	11.5	2.60	7.5	4.10	16.45	46	111	
	11	2.55	7	4.18	16.6	43	108	
	10.5	2.50	6.5	4.25	16.75	40	105	
	10	2.40	6	4.33	16.9	37	102	
	5	2.30	5.5	4.40	17	34	95	
	0	<2.30	<5.5	>4.40	>17	<34	<95	

Minimum Points Needed:

Pts. Without Start Test:

70 / Plus Passing Score in Static Plate Hold

60 / Plus Passing Score in Static Plate Hold

You are Allowed to score below the minimum (i.e., the 5 point score) on only **ONE** testing item.

If **0** or **Failed** is scored on **any** test, you do not make the team.

< - Less Than. > - Greater Than. * - Or Better.

Minimum Standard for each test is the 10 point score or Pass.

Minimum points to pass the test - 70

Updated: July 30, 2011

POINTS	START TEST	
	Singles	Doubles
16	Sec. 1.25*	Sec. 1.25*
15.5		
15	1.26	1.26
14.5	1.27	1.27
14	1.28	1.28
13.5	1.29	1.29
13	1.30	1.30
12.5	1.31	1.31
12	1.32	1.32
11.5	1.33	1.33
11	1.34	1.34
10.5	1.35	1.35
10	1.36	1.36
0	≥1.37	≥1.37

For timing to the .001, when no third digit is listed, then assume that digit is a 9 (ex. 1.25 is really 1.259)



USA LUGE PHYSICAL TEST Point Scale



Updated: June 2, 2009

Junior Women

JR Women **YOB	EVENT				Long Jump	Sit Reach	30 M Run	III. Agil. Test	Pull Ups	Bench Press	Static Wt. Hold
	90	91	92	93							
	16				2.60*	12*	4.30	16.5	36	90	15 = Pass
	15.5	16			2.55	11.5	4.35	16.65	33	85	< = Fail
	15	15.5	16		2.50	11	4.40	16.8	30	82.5	
	14.5	15	15.5	16	2.45	10.5	4.45	16.95	27	80	
	14	14.5	15	15.5	2.40	10	4.50	17.1	24	77.5	
	13.5	14	14.5	15	2.35	9.5	4.55	17.25	21	75	
	13	13.5	14	14.5	2.30	9	4.60	17.5	18	72.5	
	12.5	13	13.5	14	2.25	8.5	4.65	17.65	15	70	
	12	12.5	13	13.5	2.20	8	4.70	17.8	12	67.5	
	11.5	12	12.5	13	2.15	7.5	4.75	17.95	9	65	
	11	11.5	12	12.5	2.10	7	4.80	18.1	6	62.5	
	10.5	11	11.5	12	2.05	6.5	4.85	18.15	5	60	
	10	10.5	11	11.5	2.00	6	4.90	18.2	4	57.5	
	5	10	10.5	11	1.95	5.5	4.95	18.25	3	55	
	0	5	10	10.5	1.90	5	5.00	18.3	2.5	52.5	
	0	5	10	10.5	1.85	4.5	5.05	18.35	2	50	
	0	5	10	10	1.80	4	5.10	18.4	1.5	47.5	
	0	5	10	5	1.75	3.5	5.15	18.45	1	45	
	0	5	10	0	<1.75	<3.5	>5.15	>18.45	<1	<45	
POINTS											

** Year of Birth Minimum Points Needed: 65 / Plus Passing Score in Static Plate Hold
 Pts. Without Start Test: 55 / Plus Passing Score in Static Plate Hold

You are Allowed to score below the minimum (i.e., the 5 point score) on only ONE physical test item.
 If 0 is scored on any of the tests, you do not make the team.
 < - Less Than. > - Greater Than. * - Or Better.

START TEST	Points		Singles Sec.
	90	91	
	16		1.345*
	15	91	1.355
	14.5	16	1.360
	14	15	1.370
	13.5	14.5	1.380
	13	14	1.390
	12.5	13.5	1.400
	12	13	1.410
	11.5	12.5	1.420
	11	12	1.430
	10.5	11.5	1.440
	10	11	1.450
	0	10.5	1.460
	0	10	1.470
	0	10.5	1.480
	0	10	1.490
	0	10.5	1.495
	0	10	1.500
	0	10.5	1.505
	0	10	1.510
	0	0	>1.510

For timing to the .001, when no third digit is listed, then assume that digit is a 9 (ex. 1.25 is really 1.259)

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
4. Illinois Agility Test

Day 2 (Weight Room)

1. Weighted Pull-Up
2. Bench Press
3. Static Weight Hold
-Abdominal

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 his/her balance and falls toward the starting line, the measurement is taken from the 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.

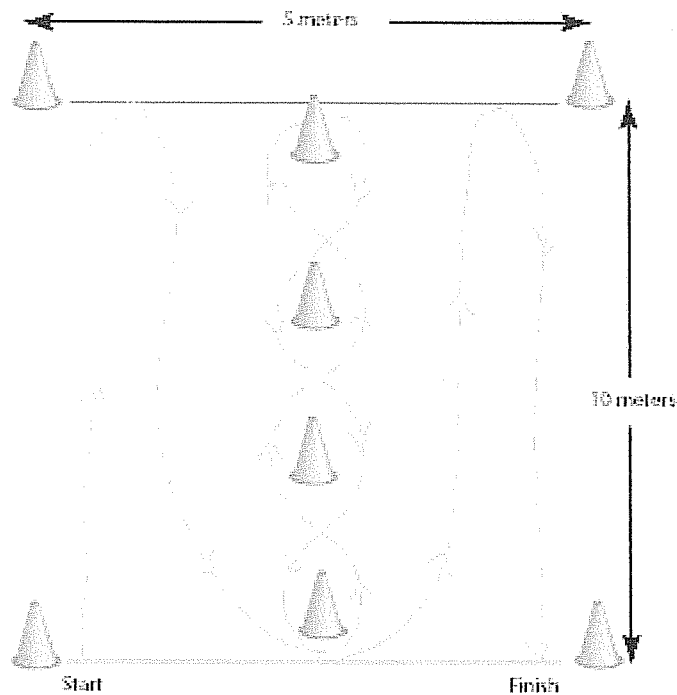
30-METER SPRINT

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.

ILLINOIS AGILITY TEST

The athlete must lie on their stomach (head to the start line) and hands by their shoulders. On the 'Go' command the stopwatch is started, and the athlete gets up as quickly as possible and runs around the course in the direction indicated, without knocking the cones over. When the athlete reached the finish line the time is stopped.

Course Set-Up



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 for an overview of this term).

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 for an overview of this term).

STATIC WEIGHT HOLD (Abdominal)

This is a static weight hold for 15 seconds. The athlete must start with his/her hips on the edge of the prone row bench. While lying in a straight supine position (straight line from ankles - knees – hips – shoulders) with arms behind head holding on to the bench, the athlete will hold 15% of their body weight one inch above the ankle. The athlete must hold this position, without raising or lowering legs, for 15 seconds. A marker will hang from the weight held 1 inch above the ground. If the marker touches the ground the time stops.

SINCLAIR VALUE – Method of comparing 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 * $(A5 < 168.091, 10^{(0.845716976 * ((\text{LOG}_{10}(A5/168.091))^2))}, 1)$
 A5=Bodyweight

Female

Sinclair Number * $(A9 < 107.844, 10^{(1.316081431 * ((\text{LOG}_{10}(A9/107.844))^2))}, 1)$
 A9=Bodyweight

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