

1945 Iowa High School Boys' Physical Fitness Tests

World War II brought the sobering realization that far too many American boys were physically unfit. National survival was at stake, and many physical educators reshaped their curricular emphasis from leisure/lifetime sports/activities to functional fitness and motor development designed to build boys into strong, agile and physically adept men.

Iowa developed the following tests and performance standards to help measure the success of the paradigm shift. The Iowa Department of Public Instruction published these test items and standards in the 1945 Iowa Program of Physical Education for Boys.

Administration of the Tests

For the tests to have value, they must adhere to the post-WWII standards. Test graders may include carefully trained adults and advanced students who have taken the tests under close teacher supervision and can demonstrate competency in grading others.

Scoring Tables

The 1945 scoring tables used to score all tests of physical condition range from a minimum of 0 to a maximum of 100. The score of 50 is average for a very well conditioned group of high school boys. A score of 100 is five standard deviations above the average, and will usually be exceeded by only .000029 per cent of the group. The percentages expected to exceed each ten points are as follows:

100	.000029%	
90	.0032%	
80	.13%	Very exceptional
70	2.28%	Very superior
60	15.87%	Excellent
50	50.00%	Good
40	84.13%	Poor
30	97.72%	<i>Very poor</i>
20	99.86%	
10	99.99%	

The Tests

The tests include chin-ups, push-ups, squat thrusts, and squat jumps. Students should receive instruction and practice in all test items, with emphasis on good form. The boys should warm up before testing. Jogging in place or a few minutes of non-strenuous group conditioning exercises is recommended.

Before each test is given, the tester should briefly explain what constitutes a satisfactory and an unsatisfactory performance. After the chinning test, the boys should be permitted to rest about five minutes before they do the push-ups; for example, a line of boys may accumulate in front of the place where the push-up test is administered, and so on for each subsequent test. These boys have an opportunity to rest and also to see their predecessors perform, thus getting a good idea of how the tests are done.

The boys should be told what constitutes a superior score in order that they may be motivated to an "all-out" performance. There should be a rest of about five minutes between the push-ups and the squat jumps, and of at least ten minutes between the squat jumps and the squat thrust.

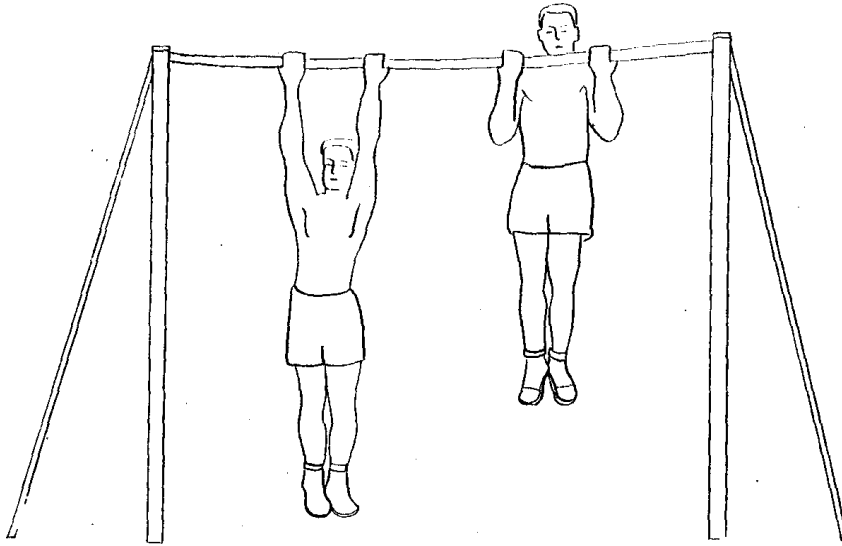
As soon as the tests are completed, the scoring blanks should be taken to a station where the tests are scored, the profile plotted, and the boy should be told his score. A few words of encouragement should be given to motivate him to further improve his muscular condition.

CHINNING

A one-inch to one and one-half inch horizontal bar should be used. Gymnastics chalk or a resin bag can be used to keep the hands from slipping.

The individual to be tested jumps (shorter individuals can step on to a chair) and grasps the bar with the palms toward the face. From a hanging position, with elbows straight, he pulls himself upward until the chin is over the bar. He then lowers himself until the elbows are again straightened, and repeats the

exercise as many times as possible. It is permissible for the individual to sway **slightly** and flex the hips **slightly**, but he may not, without penalty, kick or use jerking movements or the so-called "kip" movement. If he violates any of these rules, he is credited with only one-half chin. If he commits four violations, the test is over. If he starts to swing too much, the individual administering the test should stop the swinging. The chinning must be continuous. If the boy stops at the top or at the bottom to rest, one-half chin should be subtracted. If he persists, the test is over.



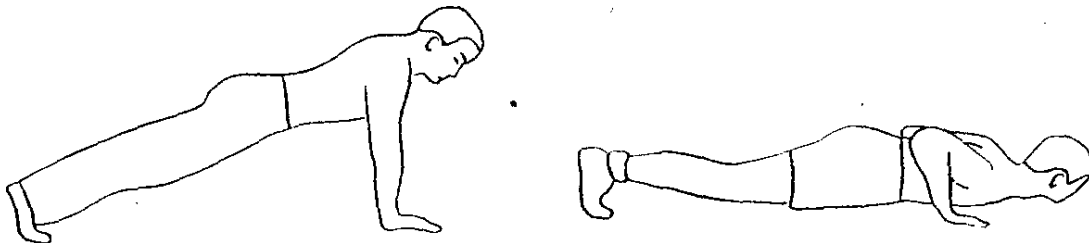
SCORING TABLE FOR CHINNING

Chins	Point score	Chins	Point score	Chins	Point score	Chins	Point score
44	100	33	91	22	78	11	59
43	99	32	90	21	76	10	56
42	99	31	89	20	75	9	54
41	98	30	88	19	73	8	52
40	97	29	87	18	72	7	50
39	97	28	86	17	70	6	47
38	96	27	85	16	68	5	45
37	95	26	83	15	66	4	42
36	94	25	82	14	65	3	39
35	93	24	81	13	63	2	36
34	92	23	79	12	61	1	33

The point score is to the right of the number of chins.
 Example: The point score for 20 chins is 75.

PUSH-UP

The individual to be tested lies face downward on the floor, placing his hands on the floor with forearms perpendicular to the ground. Fingers facing forward. The body must be straight from shoulders to heels. The boy then rests his weight on his hands and on his toes. Lifting the hips very slightly so that only the chest, the hands, and the toes are on the floor, he pushes up until the arms are straight, and then lowers the body again until the chest just touches the floor, repeating as many times as possible. After the exercise has begun and when the body descends, only the chest may touch the floor (**abdomen and thighs may not touch**), and on the return the elbows must be completely straightened. The individual may not sway or wriggle in pushing up. If he violates this regulation, he is credited with only one-half push-up. If he commits four such violations, the test is stopped. The exercise must be continuous. If the boy stops to rest or lies on the ground, one-half movement should be subtracted. If he persists in stopping to rest, he should be stopped. The judge should sit or kneel beside the boy being tested, and control his trunk movements with one hand.



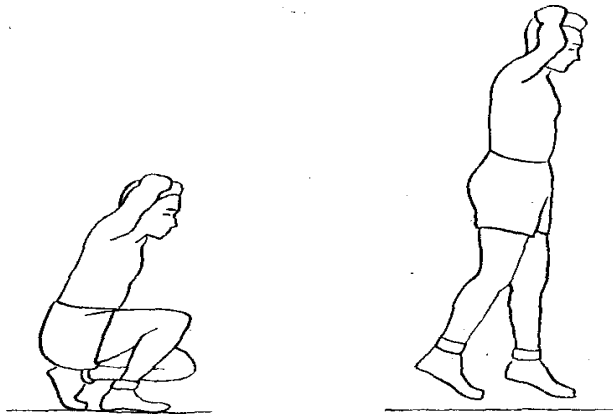
SCORING TABLE FOR PUSH-UPS

Push up	0	1	2	3	4	5	6	7	8	9
	Point scores									
0		15	16	18	19	20	22	23	25	27
1	28	30	31	33	35	36	38	40	41	42
2	44	45	46	48	49	50	52	53	54	55
3	57	58	59	60	61	62	63	64	65	66
4	67	68	69	70	71	72	73	74	75	75
5	76	77	78	78	79	80	81	82	82	83
6	84	84	85	85	86	87	88	88	89	90
7	91	92	92	93	94	95	95	96	96	97
8	97	98	98	99	99	100				

The column at the left represents the score in tens; the row across the top represents the units. For example, the point score for 32 push-ups is 59, that is, where 30 in the column at the left and 2 in the row across the top intersect.

SQUAT JUMP

The individual to be tested stands with one foot approximately a foot's length in advance of the other foot, with fingers interlocked and resting on the top of his head. He squats down until the rear heel contacts the buttock on that side. The knee must not touch the ground. He then springs upward until both knees are straight and his feet have cleared the floor. He reverses the position of the feet while in the air, that is, the rear foot becomes the front foot. He again drops down to the squat position, with the rear heel touching the buttock on that side. He repeats the exercise as many times as possible. The feet should not separate more than about a foot, although the exact amount of separation is not important so long as the individual drops down so that the buttock touches the rear heel. The movement must be continuous. If he stops to rest, the test is over.



SCORING TABLE FOR SQUAT JUMPS

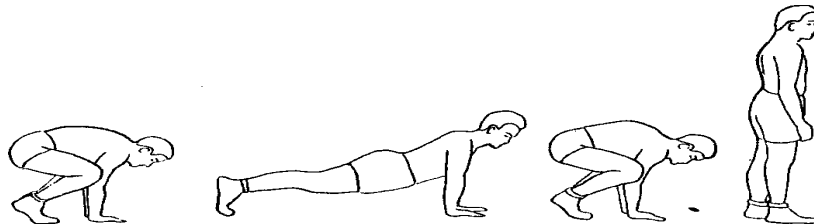
Squat jump	0	1	2	3	4	5	6	7	8	9
Point score										
160	98	98	99	99	99	99	99	99	100	100
159	96	96	97	97	97	97	97	98	98	98
140	94	94	95	95	95	95	95	96	96	96
130	92	92	92	93	93	93	93	94	94	94
120	90	90	91	91	91	91	91	91	92	92
110	87	88	88	88	88	88	88	89	89	90
100	85	85	85	86	86	86	87	87	87	87
90	82	82	83	83	83	84	84	84	84	85
80	79	79	79	80	80	80	81	81	81	90
70	75	76	76	76	77	77	77	78	78	78
60	71	72	72	72	73	73	74	74	74	75
50	65	65	66	66	67	68	69	69	70	71
40	56	57	58	59	59	60	61	62	63	64

Squat jump	0	1	2	3	4	5	6	7	8	9
Point score										
30	45	46	47	49	50	51	52	53	54	55
20	29	31	33	35	36	38	39	41	42	44
10	3	7	10	13	16	19	21	23	25	28

The column at the left represents the score in tens; the row across the top represents the units. For example, the point score for 49 squat jumps is 64, that is, where 40 in the column at the left and 9 in the row across the top intersect.

SQUAT THRUST

The squat thrust test is a sixty-second test. On the command “go,” the boy bends the knees and places the hands on the ground about twelve inches in front of the feet. Palms are flat with fingers forward. He then extends the legs backward so the trunk and legs are fully extended. Hips must be at least as low as the line from the shoulder to the heels, although they may, if desired, be lower. The boy then brings his feet back to the original squat-rest position and returns to the erect position. He must be in an approximately in a straight line; that is, he may not be bent forward ready for the next movement. When the boy is in the position of leg extended backward, *the shoulders should be ahead of the hands*; otherwise, he will have difficulty in recovering rapidly.



SCORING TABLE FOR SQUAT THRUST

Squat thrust	0	1	2	3	4	5	6	7	8	9
Point score										
0			1	2	4	5	6	7	9	10
10	12	14	15	17	19	21	23	25	27	29
20	31	33	35	37	39	42	44	46	49	51
30	53	56	58	61	63	66	68	71	74	76
40	79	82	84	87	90	92	95	98	100	

The column at the left represents the score in tens; the row across the top represents the units. For example, the point score for 31 squat thrusts is 56, that is, where 30 in the column at the left and 1 in the row across the top intersect.