A COMPARISON OF THE FATIGUE EFFECTS OF TWO TYPES OF BASKETBALL FLOORS

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For two years work has been in progress at Stanford to determine the time required for an individual's pulse and pulse pressure to return to the resting state after the completion of a specified exercise. It is an established fact as shown by the work of Bainbridge in his book and the accompanying bibliography on the Physiology of Muscular Activity that there is a definite relationship between the strenuousness of the activity and the time required for the pulse and pulse pressure to return to its resting state. With this statement to suffice as authority for the procedure in this paper, the following rather interesting discovery was stumbled onto.

Fatigue tests were being run on basketball players. As a part of this program their pulse and pulse pressure during rest prior to a practice game were recorded, and then after the game, and while the player was resting under the same condition as before the game, readings of pulse and pulse pressure were taken at regular five minute intervals until his pulse and pulse pressure returned to its normal resting state as recorded before the game was played.

Two basketball courts are available at Stanford; the regular basketball pavilion and a court in the gymnasium. Due to students' activities which were scheduled for the pavilion it became necessary to move some of the tests to the gymnasium court.

As a result a wide discrepancy in recovery times for games played in the gym from the games in the pavilion was observed. At first it was thought that this variation was due to the difference in reaction of an individual from one test to another, so several were repeated. Always the variation was in the same direction and consistent for the same individual.

A considerably greater time was required for recovery from the games played in the gym than for games played in the pavilion. The amount was from 5 to 10 minutes for one individual, which is insignificant, to 80 minutes for another, which is quite marked. The following Table shows the results for eleven tests. The figures indicate the time required for the recovery of the pulse to normal resting state after a regulation game of basketball. As is noted, eleven of the tests were for games played in the pavilion,and eleven for games played in the gym.

Time of Pulse Recovery to Resting State after Basketball Games on Two Different Types of Floors

Subject	Minutes to recover after game in gym	Minutes to recover after game in pavilion	Differences in recovery time
1	80	75	5
2	80	55	25
3	110	100	10
4	80	35	45
5	130	50	80
6	100	80	20
7	110	80	30
8	140	90	50
9	120	90	30
10	90	40	50
11	100	70	30