SI VAULT

PRINT THIS
Powered by Clickability

Click to Print

SAVE THIS | EMAIL THIS |
Close

August 15, 1955

The Report That Shocked The President

It came from two physical fitness experts who tested U.S. and European youngsters, and it shows that the U.S. is rapidly becoming the softest nation in the world

Robert H. Boyle

There is a problem in the United States today, one which goes far deeper and has more serious implications for the future of the nation than many of those which haunt the headlines daily. It is the problem of the physical fitness of U.S. youngsters, and it was highlighted recently in its most dramatic form at a White House luncheon. The luncheon was the idea of John B. Kelly Sr., a wealthy Philadelphia contractor and onetime national sculling champion. A few months back, Kelly had been shown a report which originally appeared in *The New York State Journal of Medicine* on the physical fitness of youngsters, and the findings looked so horrifying that he passed them on to Senator James Duff of Pennsylvania who, in turn, took the matter up with Dwight D. Eisenhower.

Present at the luncheon were Kelly, Duff and 30 sports celebrities, numbering among them such stars as Tony Trabert, Jack Fleck and Willie Mays. But this was one day the stars sat back. Along with the President, they listened in silence to a report by the two researchers whose findings had prompted the luncheon. The two researchers were Hans Kraus, M.D., Associate Professor of Physical Medicine and Rehabilitation at New York University, and Miss Ruth (Bonnie) Prudden, Director of the Institute for Physical Fitness at White Plains, N.Y. When they finished their report, the President called the problem a serious one. It was, he said, even more alarming than he had imagined. The President's guests could not help but agree.

In essence, what Dr. Kraus and Miss Prudden had told the gathering was this:

?that 57.9 % of U.S. youngsters tested for physical fitness failed one or more of six tests for muscular strength and flexibility while only 8.7 % of European youngsters failed.

?that 44.3 % of the U.S. youngsters failed the one flexibility test included in the above six tests while only 7.8% of the European youngsters failed.

?that 35.7% of the U.S. youngsters failed one or more of the five strength tests included in the above six tests while only 1.1% of the European youngsters failed. In Austria and Switzerland, the rate of failure was only 0.5%.

In this article SI presents the problem of the physical fitness, or rather *unfitness*, of U.S. youngsters in its full scope as the result of

exhaustive interviews with the Kraus-Prudden research team and other authorities on the subject throughout the country.

The six tests on which the above figures are based are known collectively as the Kraus-Weber Tests for Muscular Fitness (*see drawings below*). They are the product of 15 years of research by Dr. Kraus and Dr. Sonja Weber in the Posture Clinic of Manhattan's Columbia-Presbyterian Hospital. Since their development, the Kraus-Weber Tests have been administered to 4,264 youngsters in the U.S. and 2,870 children in Austria, Italy and Switzerland. (More than 40,000 U.S. youngsters have actually taken the tests, and while the results have not been published the rate of failure remains substantially the same.)

The U.S. and European youngsters tested were all between the ages of 6 and 16 and lived in comparable urban and suburban communities. "The Kraus-Weber Tests," Dr. Kraus explains, "are designed to determine only the *minimum* levels of muscular fitness, not the optimum levels. The tests determine whether or not the individual has sufficient strength and flexibility in the parts of his body upon which demands are made in normal daily living." For example, the sit-up test in which the knees are bent (*see below*) tests abdominal muscles. If a person fails, it means that his abdominal muscles cannot lift the weight of his upper body, and such a condition indicates a lack of sufficient exercise.

Surprisingly enough, the Kraus-Weber Test results show no great difference between urban-suburban and rural rates of failure in the U.S. And the same is true of children from different economic backgrounds; rich and poor fail at the same rate.

The cause: A number of factors ranging from the playpen to the school bus to television—in short, America's plush standard of living.

Miss Prudden, who as the former Mrs. Richard Hirsch-land herself mothered two children, put it this way: "Many youngsters today have no bodies. To get a body, you've got to start way back when the child is still a baby. Keep the babies out of playpens and carriages. Let them go out and move about. Let youngsters climb trees and fences to develop their muscles." Miss Prudden reflected, 'American mothers are afraid of their children hurting themselves. This is a Band-aid society. If a child breaks an arm, the arm may be in a plaster cast six weeks. That is not a catastrophe. The catastrophe is that so few opportunities for adventure remain to children—and the few that do remain are often curtailed by overanxious parents."

"We're paying the price of progress," says Dr. Kraus, who states the case in somewhat different terms. "The older generation was tougher because it had to undergo adequate physical activity in the normal routine of living. We have no wish to change the standard of living by trying to do away with the automobile and television. But we must make sure that we make up for this loss of physical activity. In other words, let's take the sting out of the benefits."

Other researchers have pointed out that lack of adequate physical activity can be detrimental. Britain's J. A. Heady and J. N. Morris found that death from coronary heart disease occurs with more than twice the incidence among the physically less active than it does among the active. Moreover, once coronary heart disease does strike, mortality is much higher among the less active. A striking example was the comparison between British bus drivers and conductors. The drivers, sitting all day behind the wheel, were far more susceptible to coronary heart disease than were their more active colleagues, the conductors, who spent the working day climbing up and down the stairs of the double-decker buses.

Other researchers, both here and abroad, also have found that the physically inactive person has high neuromuscular tension, high absolute and relative weight, high blood pressure, high pulse rate, lower adrenocortical reserve and less vital breathing capacity. Diabetes and duodenal ulcers are said to be two ailments which also have a high incidence among the physically inactive.

However, there is also the problem of emotional instability. It may be that the physically inactive person is the one most likely to be plagued by emotional instability. Miss Prudden found that principals, teachers and school psychologists would almost always agree that the children who failed more than one test—including the flexibility test—were usually those living under stress and exhibiting emotional difficulties in their classes.

Private and public institutions are particularly interested in this point. Physical education authorities at West Point have found in a recent study that 12.9% of the cadets who finished in the lowest category on the Academy's physical aptitude test needed either psychiatric help or received psychiatric discharges. But no psychiatric difficulties were encountered in the most physically fit cadets.

The city of New Orleans has come up with some interesting figures pertaining to its juvenile delinquency rate. For a waterfront city imbued with a tradition of Gallic *joie de vivre*, New Orleans has had little trouble with juvenile delinquency, at least not since the New Orleans Recreation Department came into existence in 1947. Mayor Delesseps S. Morrison reports: "Before we inaugurated NORD, our city had only 30 playgrounds, in many cases totally inadequate. Today we have 131 playgrounds located in every neighborhood in New Orleans. Most of them are floodlighted. All of them are adequately supervised. Before 1947 our municipal confinement home showed a daily average population of 300 boys. Today that figure has been cut to 100, or one-third of the previous number."

If any blame is to be handed out, the parents should be the first in line. Children show up for school physically unprepared—54% of the 6-year-olds fail to pass the Kraus-Weber Tests. After the parents, the schools must be blamed. That the schools have fallen down on the job is evident when one notes that 52 % of the high school graduates tested failed the Kraus-Weber Tests. Private schools, which devote much more time to physical education, have only a 14% failure rate upon graduation.

This doesn't mean that something can't be done now. It can, and regardless of the facilities a given school may lack. For example, in the winter of 1954, the Institute for Physical Fitness set up its first pilot study plant at the Whitcomb High and Junior High School in Bethel, Vt. The children came from a rural area, but for the most part they enjoyed many of the modern gadgets and conveniences found in city life. The rate of failure on the Kraus-Weber Tests was 46% for those students in the pilot group. The school had no gym, but Principal Robert Noble asked what could be done. The answer: exercises once a day for 20 minutes. Six weeks later the rate of failure at Bethel was only 6%.

The mere mention of formal exercise is enough to bring a shudder to the average American spine, weak as it is alleged to be at present, but formal exercise must be resorted to where there is no room or time for freer play. Exercise may not be popular, but it certainly can be made more palatable by teaching it with imagination and belief.

There are more examples. Eleven months ago, the Greenacres School in Scarsdale, a suburb of New York City, had a 32% rate of failure among its students (it was, incidentally, the lowest rate of failure found in any public school in the northeastern U.S.). As part of the pilot study, the physical education teachers at the school added specific exercises to the existing program of tumbling and gymnastics. Within five months the rate of failure had fallen to 24%. In a retest last June 23, it had plunged to only 13%.

Last April, P.S. 28 in the city of Yonkers, N.Y. was tested, and the rate of failure was 47%. In this pilot study, the homeroom teachers had been instructed in giving exercises to their classes. A retest was made on June 28, and the rate of failure had dropped by almost half to 28%.

Despite all this, Dr. Kraus and Miss Prudden have met with opposition. They once asked permission to test in New York City but were

dismissed with a curt "What can we do about it if it is bad?" One high school official in New York State was even more explicit in his refusal to allow the Kraus-Weber Tests to be given. "Do you know," he was asked, "that roughly 25% of the youngsters in this country can't do one sit-up with the knees bent because they lack sufficient abdominal muscles, the muscles used in childbirth?" The official snorted, "All I can say is that it's a good thing our boys don't have babies."

Overseas, the reaction has been far different. The ordinarily wary Swiss offered no objections. "By all means test us," said a Zurich health officer. "The problem America has today because of its standard of living Switzerland will have 10 or 15 years from now."

But much more is needed than isolated cases of cooperation. The problem of physical fitness among youngsters is a national one, and it deserves a national program. First of all the public must realize the seriousness and scope of the problem itself.

Americans must be told that 1) a *minimum* of physical fitness is necessary for a healthy life; 2) at present 57.9% of U.S. children do not have that minimum; and 3) something must be done about the situation, which is getting worse yearly.

As for specific points in a national program, the following could be accomplished:

Enactment of federal or state laws to make physical education compulsory. New York requires state-wide examinations in academic subjects in high schools. There is no reason why physical fitness tests could not be required by law. This may prove difficult inasmuch as it would mean reversing a trend—Oregon, for example, has just repealed its physical education laws entirely.

The armed forces too can help. In Switzerland each boy is given a physical fitness card upon entering school. When he is called for military service he must present this card. If he has not passed certain tests, he is not eligible for certain privileges, *e.g.*, he is not allowed to select his branch of service.

Youngsters should devote one school hour each day to "calorie-burning" sports, such as running, jumping, swimming, tumbling and wrestling. Sports which stress skills rather than body building per se, such as baseball, should only be permitted after the child's body has started to develop. Intramural programs should be gone over closely, no matter how proud the physical education department or the PTA. These programs are often not as effective as they seem. Studies by Dr. Josephine L. Rathbone of Columbia University indicate that only 20 minutes of each hour assigned to physical education actually are utilized.

But perhaps most important of all, attendance should be made obligatory for *every* youngster. Athletically the U.S. rates as one of the most undemocratic countries in the world—a high school can have as many as 1,000 students, but the only ones who receive systematic muscular training are those who have the good fortune to win a place on one of the school's athletic squads. It's a matter of common sense that the children who get the least exercise are the ones who need it most.

The Amateur Athletic Union and similar organizations can supplement sports programs in the schools. The AAU is doing such a job at present with its Junior Olympic Program, which has attracted more than 500,000 youngsters. But in the long run the AAU program can't go it alone—it's up to the schools to send forth youngsters physically prepared to take part.

The Kraus-Prudden team and the Kraus-Weber Tests do have their critics.

One such is Representative Frank M. Karsten, Democrat of Missouri. He fired off a letter to the President immediately after the White House sports luncheon. Wrote Mr. Karsten to Mr. Eisenhower: "According to Dr. Kraus' statement, the physical fitness of American children is eight times lower than the physical fitness of European children. Simply on the mathematical surface, this is a ridiculous

statement, and I am very much surprised that you would dignify it. . . ." The congressman then asked the President to explore the matter through "the proper Governmental Agencies" rather than take stock in Dr. Kraus's figures.

Perhaps the most studied criticism of the Kraus-Weber Tests has come from two researchers at the State University of Iowa. Graduate Student Janet At-wood and Associate Professor Margaret Fox of the Physical Education Department for Women first took a course of instruction for administering the tests at one of the Kraus-Prudden test certification clinics. Thus armed, they then gave the Kraus-Weber Tests to 575 normal, healthy children in grades one through six. Their findings: the tests "far underestimate" the muscular strength and flexibility of children tested inasmuch as the children must pass all six tests with no credit given for partial success in any of the tests.

Miss Atwood and Dr. Fox point out, so says the release from Iowa, "that to say that a child has failed these tests of muscular fitness as a whole because he cannot pass one of them with a score of 100% is as unrealistic as calling a child feeble-minded because he can't pass a quiz on mathematical skill or vocabulary mastery in a series testing his intellectual capacity."

Dr. Kraus and Miss Prudden reply: "A correct comparison would be as follows: a patient subjected to a medical checkup fails to be healthy in one of the tests, such as high blood pressure, albumin in the urine or a low blood count. This patient would still be considered sick in spite of, for example, having perfect hearing and eyesight."

The Iowa researchers find particular fault with the flexibility test. Southern European children and adults are shorter than Americans; this means that they are subject to "less intensive spurts of growth and so should be expected to retain more flexibility during the growing period." They say that to expect "maximum flexibility in the child's muscles while his bones are growing rapidly is like trying to stretch the same rubber band with an increasingly longer stick.... If you make the stick enough longer, the band just won't 'give' much."

To this Dr. Kraus and Miss Prudden also have a reply. They say: "To start with, we did not test southern European children. The children tested were from northern Italy, Austria and Switzerland. Their sizes were completely comparable with our own. Furthermore, the floor-touch test is not related to size, but rather to stress and emotional tension. When the original measurements were established, Dr. Sonja Weber computed leg length and floor-touch results and found ability to touch the floor was completely unrelated to size."

Critics notwithstanding, an impressive number of physical education authorities back the Kraus-Weber Tests. Dr. Peter Karpovich, Research Professor of Physiology at Springfield College, one of the nation's leading physical education schools, says that the Kraus-Weber Tests have fulfilled "a very important function by calling attention to the fact that our children do not get sufficient exercise." Last year Dr. Donald K. Mathews and two other members of Springfield's Tests and Measurements Division gave the Rogers Physical Fitness Index test to more than 4,000 boys in junior and senior high schools. Their report: "At no time was a school found to be average or above [compared to previous] national norms." The Rogers test, which involves the use of expensive equipment not within the reach of most schools, is particularly valuable in that it has been in use since the '20s and thus allows examiners to compare results with standardized norms set then. Physical education authorities are generally in agreement that the Kraus-Weber Tests and the Rogers test complement each other. No one is more in agreement with this than the man who devised the Physical Fitness Index, Dr. Frederick Rand Rogers. Says Dr. Rogers: "Doctors Kraus and Weber have provided in their battery of six tests far and away the most valid and generally useful measure of physical fitness for children of elementary school age."

These then were the facts presented to Dwight D. Eisenhower. After hearing the report on the nation's youngsters at the White House luncheon, President Eisenhower was moved to recall some thoughts of his own. During World War II, when he was a five-star general,

the nation was facing the greatest crisis in its history. Men were never more needed to serve America's cause but, the President recalled, more than 50% of them were unable to serve because they were physically unfit. Dwight D. Eisenhower did not need to be reminded that a problem does exist.

Find this article at:

http://vault.sportsillustrated.cnn.com/vault/article/magazine/MAG1130060/index/index.htm

SAVE THIS | EMAIL THIS |

Close

Click to Print

Check the box to include the list of links referenced in the article.

Copyright © 2007 CNN/Sports Illustrated.