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Articles

Predicting Athletic Ability

Playing basketball certainly will not make you seven feet tall... and no amount of exercise will transform a genetically inferior specimen into an outstanding athlete, and neither will anything else.

People are not born equal; the potential for physical development varies enormously... and while it is true that properly performed exercise will greatly improve the functional ability of almost literally anybody, it is also true that the final results will not be equal.

Proper exercise, like anything else, has certain basic requirements... if these requirements are provided, then the results will be good; if not, then the results will be poor... it's just that simple. But what are the requirements for proper exercise? What should we do? What should we avoid?

The claims and counterclaims now being made in the field of exercise have produced far more confusion than understanding... whom to believe?... what to believe? This is unfortunate, because the demonstrated benefits of properly conducted exercise are of enormous value.

To begin with, we must clearly understand the limitations of exercise... what it can do, and what it cannot do. And we must also understand the individual limitations of people; in effect, who can and who can't.

Contrary to popular opinion, exercise does not produce physical changes of any sort... instead, exercise stimulates physical changes. This statement is neither a play on words nor a point to be considered lightly.

Physical changes are produced by the body itself... in response to a demonstrated need for such changes. Exercise provides the stimulation for these changes by imposing an overload of some sort on the body, by asking the body to perform at a level beyond its existing functional ability.

Exercise that does not involve an overload of some sort is utterly worthless for the purpose of improving functional ability; so, the results of exercise are in proportion to the quality of the exercise performed, rather than the quantity. In exercise, at least, more is certainly not better, and is usually worse.

Secondly... exercise cannot change your genetic potential; your potential for physical improvement was genetically determined before birth. So, there is a limit to possible physical improvement, a limit that varies widely on an individual basis.

A large part of the presently existing confusion in the field of exercise is a direct result of a general failure to understand the above point... or an unwillingness to accept it. Having seen the results that somebody else produced by exercise, many people are almost desperately seeking the secret to similar results. Such people will try almost literally anything that is suggested.

The potential for physical improvement varies enormously. Although it can't be measured with a very high degree of accuracy, it is now possible to anticipate the limits of physical development... a bit later we will cover the procedures required for making such determinations. The purpose of this series of chapters can thus be divided into two parts... first, a detailed coverage of the measurement and testing procedures required for a practical evaluation of the several physiological factors that contribute to functional ability... and, secondly, a step-by-step outline of the methods required for improving some of these factors.

In very simple terms... first we will tell you what you can do... and then we will tell you how to do it. And, along the way, we will tell you several things that you cannot do... as well as a number of things that you should not do.

The ability to perform any physical activity is determined by at least six factors, all of which are important. Some of these factors are subject to improvement, and some are not. These factors are... one, bodily proportions... two, cardiovascular ability... three, flexibility... four, muscular strength... five, neurological ability... and six, skill.

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Exercise will do absolutely nothing to improve your bodily proportions... and will probably do nothing to improve your neurological ability the first of these factors is certainly determined by genetics... the second is probably determined by genetics. So, in effect, we are stuck with what we have in these areas, good or bad.

Skill is a result of practice...practice devoted to a particular activity, practice involving specificity; thus it follows that properly conducted exercise will produce absolutely nothing in the way of an increase in skill.

Why? Because proper exercise involves an overload... and because proper skill training involves total specificity; factors that are mutually exclusive... if you have one, then you obviously cannot have the other.

Thus, exercise will not help your skill, but improperly performed exercise may hurt your skill; so , do not make the mistake of confusing exercise, which is performed for the purpose of improving your physiological functional ability... and practice, which is performed for the purpose of improving your skill.

Specificity in exercise is utterly impossible, an outright myth; and anything approaching specificity in exercise is a terrible mistake, because it will do little or nothing in the way of improving the physiological factors involved in performance... but it certain will not hurt your skill.

Thus, three of the six factors cannot be helped by exercise... we cannot improve our bodily proportions... we cannot increase our neurological ability... and we cannot help our skill by exercise.

But, we certainly can increase our muscular strength... we can improve our cardiovascular ability... and we can increase our flexibility; all three of which factors are important for functional ability in any activity... and the only possible way to improve any of these factors is exercise.

So, exercise is important, far more important than most people even suspect; yet it still remains true that most of the time and energy devoted to exercise is utterly wasted... or worse, since poorly performed exercise is actually counterproductive.

This remains true for two reasons... primarily because most people do not understand the very simple cause and effect relationships involved in exercise... and, secondly, because many people are still trying to produce results that are simply impossible.

A large part of the confusion that currently exists on the subject of exercise is a direct result of the fact that functional ability is the result of the several factors that I have listed previously... and while it is obvious that the ultimate level of performance in any activity will be reached only when all of the contributing factors are ideal, it still remains possible to reach a level of performance that is far above average even when one or more of the factors is not ideal.

Thus, it happens that many apparent exceptions can be seen in any sport; some athletes do not, for example, have the best bodily proportions for a particular activity... yet still manage to perform at or near a championship level.

But such an example proves literally nothing... the same individual, given ideal bodily proportions, would perform even better. In such cases, a weakness in one area is compensated for by advantage in another area; but regardless of his level of performance, such an individual is still being held back by his weakness in one area.

The most common failure in today's athletes exists in the area of muscular strength... which is ironic, to say the least because muscular strength can almost always be increased to a significant degree... and in doing so will increase the functional ability of any athlete in any sport.

In general, today's athletes do not perform well because they are strong; quite the contrary, most athletes perform well in spite of the fact that they are actually quite weak. Very few athletes in any sport are involved in any sort of meaningful strength training program... and, as mentioned earlier, most of the exercise that is performed is wasted, failing to produce the desired results.

A large part of this common failure to utilize meaningful strength training programs is due to the fact that many coaches are still afraid of strength training... which fear, in turn, stems from the fact that very few coaches really understand the role that muscular strength plays in physical performance.

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Properly performed strength training will greatly increase an athlete's flexibility... yet most coaches still remain convinced that increased muscular size and strength will somehow reduce the flexibility of their athletes. The old muscle bound myth lives on.

Increased muscular strength will also increase the speed of movement in any activity... yet many coaches still believe that increased strength will reduce the speed of their athletes.

In later articles, we will carefully examine all of the factors that contribute to functional ability... for the sake of clarity, these factors will be discussed one at a time. But it must be clearly understood that all of the factors are important, and it must be remembered that the relationship of factors is also important; that all of the factors work together to produce the final result.

And it must also be understood that a factor which provided an advantage in one activity could easily pose a problem in another activity; an ideal basketball player, for example, might be eight feet tall... while the same bodily proportions would be an utter disaster for a gymnast.

In the next chapter I will discuss the factor of great importance in any sport, and one that can easily be the only difference between a world champion and an outright failure. Just what is neurological ability? How does it contribute to athletic ability? Can it be measured, and if so, how? These and many other important questions on the subject of neurological ability will be covered in a simple, practical manner.