

Prevention Of Over-Training

By

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This article was written for "THE FIRST AIDER" in 1934. We are reprinting it for three reasons. (1). Because many of our regular coaches are in the Service and others must pinch-hit for them. (2). Because we consider it the best training article we have ever published. (3). It is timely.

From the technical angle, the coach of any sport designs the practice sessions with two main objectives in mind. First, he wishes to aid his players in development of individual skill and weld them into a smooth working team; and, secondly, he hopes to bring about a fine balance between mental and physical conditions of each athlete to insure the most efficient performance in the approaching contest. Simultaneously, then, the coach is both TRAINING and CONDITIONING his players.

Coaching methods are good or bad, according to the manner in which these two factors are handled in the practice periods. If attempts to build excellent performance are stressed in long or hard workouts there is a grave danger that the physical or mental conditioning may rob the player of an ability to make the best use of his acquired skill when faced with the stress of stiff competition. On the other hand, should the practices be too short, too few, or too easy, the conditioning factors may be handled properly but the necessary skill will be lacking. Under each situation a game may be lost to opponents who ordinarily are weaker.

It is obvious, then, that the relationship between TRAINING and CONDITIONING often are antagonistic. Unquestionably the biggest problem in coaching is to keep these two factors in relative harmony and proper balance.

We know more about TRAINING than CONDITIONING, because results are more obvious and easier to measure accurately. By charts, by records and by observation each coach has standards of accomplishment by which he rates the ability of each player, but there are few definite measurements of his stage of conditioning. Of the two phases of conditioning, physical and mental, the former lends itself to the more accurate rating. Weight variations, for instance, tell us a lot about physical shape, but where is the coach who can know in advance whether or not his players have the highest degree of mental balance? Our tests of skill and physical condition may indicate a fine preparation for competition, but only the game performance shows us if the boy or team is "hot." If proper mental condition is missing, little can be done about it, and the coach is forced to squirm on the bench while he suffers the agony of watching his boys operate far below their normal standards. An honest coach must put the responsibility for this failure squarely on his own shoulders for obviously he failed to recognize in the practice sessions the warnings of staleness which were present there.

Mental factors are so complex that while we never can be certain of our rating so as to tell just what will happen, nevertheless there are some facts regarding the subject which point the way to prevention of overtraining, commonly known as staleness. This article will attempt to explain some of these facts. Either through sad experience or by study, the veteran coach has the facts at hand and makes expert use of them. Young coaches, however, often become so engrossed with the development of skill that they ignore these nervous aspects of performance. Readers are advised to go beyond the scope of this summary and make a close study of "The Psychology of Coaching," by Coleman R. Griffith.

Physical accuracy and control, and good judgment, which are the most important features of fine performance, arise in the nervous system. Staleness impairs one or more of these features and consequently is more mental in character than physical. Means for detection and prevention, then, must come from the science of psychology. At least two of the Laws of Learning have direct application on this subject.

One of these is the Law of Effect, which states that the individual tends to repeat and learn quickly those activities which are interesting and satisfying. Continued INTEREST, then, is a most important learning factor. Knowing this, the wise coach designs practice sessions which will please his players. Enthusiasm runs high in early season, but if practice drills become monotonous, too long, or too strenuous, it drops off quickly. Unless practices are changed, they become not only a waste of time, but the player actually will develop a dislike for the sport or for the coach.

Complete absence of interest is extremely easy to recognize, but the steps by which it has been lost are so small that they are not obvious. Some of the first indications are, unusual quietness, which often approaches sullenness in practice; missing scheduled work-outs for repeated trivial reasons; crabbiness between teammates; repeated tardiness; inability or refusal to concentrate while the coach is making necessary explanations; and indifferent or careless performance.

There are still earlier indications which might be noted. A normal youngster is ambitious, comparatively exuberant, somewhat hilarious and mischievous when he is happy. While a coach must control these expressions to some extent, he should feel alarm when they are missing. Take "fun" out of the practices and staleness soon creeps in. Diagnose the remarks made by your players, note their actions in the dressing room and during rest periods. The boys unconsciously will indicate the state of their morale and the wise coach pays close attention to these signs. Aloneness may aid your professional dignity but it certainly will kill your contacts which prevent staleness.

Another psychological fact of value to the coach is stated in the Law of Frequency which informs us that there are individual physiological and mental time limits for efficient progress of the learning process, and that after these time limits are reached no learning takes place. According to Griffith, the time limit for most tasks such as single skills like basket shooting, dribbling, etc., is approximately twenty minutes.

After TWENTY MINUTES, or less, a boy fails to learn any more about any stunt. Not only does he fail to improve, but he loses interest in that stunt and will not want to repeat it. Yet we all have been guilty of sending our teams through a drill or a scrimmage, and if the performance is poorer than expected we have gritted our teeth and growled.

"That is terrible. You fellows either do that right or you keep at it until you do."

Psychology definitely has proved that such procedure is wrong, and that only the coach is to blame if under such a method the players lose interest and fold up at a critical time.

Those responsible for the rules of our various games know that the types of activity must be varied or rest periods provided. An inning in baseball consumes about twenty minutes. Football is divided into fifteen minute periods. Basketball has similar divisions, with no period of effort longer than twenty minutes. Unquestionably, the time to be devoted to practice should be divided along the same lines.

In addition to this necessary variation of activity, the Law of Frequency has important bearings on the number and length of practices. This can be noted in other lines of learning in which school masters recognize this law by limiting concentration on each scholastic subject to one hour or less per day, with seldom more than five such periods per week. Also they apply it by lightening the effort just preceding important tests when they use reviews and cease attempts to add new material.

After all, coaches are teachers and methods useful in one line of teaching should have equal force in athletics. Yet we find teams being sent through two-hour work-outs five days a week with the expectation that they will be in good form on the sixth. We extract all of a boy's physical and mental energy in hard practices and shift the responsibility when there is nothing left for the test.

A reasonable application of some of the items listed below will go far toward the prevention of overtraining. Of course, these often require some sacrifice of skill development. Still, better results are usually obtained if desire and determination are present than if dependence is placed on skill without these attributes.

1. Write out the practice schedule carefully in advance, and don't permit the stress of the workout to lead to drastic changes.
2. Arrange stunts and scrimmages so that there is variation every fifteen or twenty minutes. Carry a watch and adhere strictly to the prearranged time schedule.
3. Limit total concentrated practice time to approximately ONE HOUR with some adaptations for individuals and for large squads with restricted facilities.
4. Plans for pre-season work-outs should include not more than two exhausting sessions per week with two or three easier periods.
5. After the playing season is under way, three or four practices a week are enough and only one of these should be exhausting.
6. Call off all practices the day before a game, or at least permit only a twenty or thirty-minute easy warm-up.

Under such a schedule, the team probably will not reach a high peak early in the season, but the coach will have the satisfaction of watching his squad reach a high level and either maintain it or improve as the weeks roll past.

Suggested Treatment

For Nose Bleeding

Place cold towels on the back of the neck, across the forehead and the bridge of the nose.

Roll up some cotton and place in the mouth between the teeth and the upper lip.

Put some cotton on an applicator, saturate it with Nitrotan—insert in the nostrils and hold against the bleeding area—if possible. If not possible, saturate cotton with Nitrotan and plug both nostrils. Have the patient breathe through the mouth.

If nose bleeding is chronic, have an examination by your team physician.

— F-A —

Play Safe With

Tape Remover

The use of gasoline to remove adhesive tape is a dangerous practice. In the past there have been some serious fires and explosions, even causing the death of athletes.

Gasoline may seem economical, but is it? Sometimes insurance com-

panies require a permit for storage of gasoline and if the cost were only two cents per \$100, this would amount to \$200 additional insurance cost on a \$100,000 building.

Would you want to assume the responsibility for fire or increased insurance rates for the small difference in cost between Tape Remover and gasoline?

— F-A —

Appoint some managers and instruct them in their responsibilities. This will give you more time to worry—when the "heats on!"

Don't overlook the girls when appointing assistants. Girls are here to stay, it seems - and are really capable persons.



ONLY ONE KEYSTONE—

We of America are in the midst of the greatest revolution of our history. The Revolutionary War, the Civil War, - these were revolutions - turning points in our national life.

World War II has destroyed the normal existence of every family in our nation. Our boys are gone, our methods of transportation are unwhinged, what we eat and the things we wear are rationed as necessities - every family and every individual is a part of the change.

There is one keystone - and only one, that may link us together. It is the American School System and its personnel!

Every school room should be a citadel - a place where courage, sanity and steadfastness-of-purpose are taught by example.

In times like these we are inclined toward hysteria. We have duties to perform, but we cannot concentrate on them. We try to fight the war with our boys when our obligations are to keep the home front on a steady keel - steady and ready for their return.

The steam of our revolution blows off in Washington. The check valve may be controlled in the school.

25 Years Old In Athletics

CRAMER'S POWDER

FOOT-BATH

METHOD

of ATHLETE'S FOOT

Prevention and Treatment

1. Dry Feet Before Using Foot Bath
2. Work Powder Between Toes and Over The Feet
3. Carry Adhering Powder Into Shoes (And Not On The Floor)
4. USE BEFORE WORK-OUT To Reduce Sweating and Blisters
- AND AFTER WORK-OUT To Give Lasting Protection, Dry Shoes, Reduce Foot Odors
5. A Good Soldier Doesn't Waste His Powder

USE IN CROTCH OR UNDER ARMS TO PREVENT OR TREAT JOCK STRAP ITCH OR CHAFFING OF SKIN, AND FOR HEAT RASH

Cramer's Foot & Body Powder

CRAMER CHEMICAL CO., Gardner, Kansas

MARKETED IN 5/2 OZ. SHAKER TOP CARTONS AND IN 10 AND 25 POUND PACKAGES

This card—actual size 14 in. by 11 in.—will now be included in each 10 pound and 25 pound bulk package of Cramer's Foot & Body Powder.

This card should be placed on the wall near the powder box—where your players can easily read the instructions. Insist that they carry

the adhering powder into the shoe—and not onto the floor. Instruct your players to pick up a small amount of powder when they are standing in the foot-bath and place some in the crotch, under the arms or on any place where the skin is irritated and has been rubbed.

NOTICE: Cramer's Foot & Body Powder will not serve as an adequate or competent treatment for deep-seated cases of Athlete's Foot or Jock Strap Itch where there is much dead tissue. We know nothing that may be safely used to penetrate this "shell" and kill the underlying fungi. The "Shell" must be removed or keratinized before a product of any kind can do its work efficiently.

The term "Lasting Protection" in the card above means from day to day protection and implies the daily use of the Powder Foot-Bath by the athlete.

Printed Again By Request

"The Dream of a Character Builder" was written in 1938 by L. E. Perkins of our company. It was first introduced at the American Football Coaches Convention in Chicago that December. It was printed in the January 1939 issue of "The First Aider".

We received many requests for extra copies. We were also asked for permission to change the names to fit local teams for local banquets. We suggest you try fitting in the names of your squad—and see what happens.

The Dream of a Character Builder

The day was hot, my boys were stale, Their suits hung on them like coats of mail. We'd dropped the last four games we'd played In spite of well laid plans we'd made.

I tried every play—then ordered the shower, My patience was gone and I'd turned sour. I sat there a while, like a great big sap Sore as a boll—then I picked up my cap.

But when I reached the cool field house They were all gone—'twas as still as a mouse. I sat down for a minute before going to work When a tap on the shoulder brought me up with a jerk.

A man of distinction was there by my side He must have slipped in through the door that stood wide Says he, "You're just the fellow that I want to see 'We're after a coach—they've selected me"

"To make you an offer—so here I go— "You can have anything—just don't say No! "A contract for ten years is ready to sign "Just tell us what salary to place on the line.

"We'll get you assistants—Frank Thomas and Kern "Lou Little, Carl Snively—we have money to burn. "If you want Bernie Bierman to coach on the line "Or maybe Fritz Crisler—that suits us just fine.

"Andy Kerr or Dorias in the backfield would do "And maybe Gill Doble and Stub Allison, too. "For end coach, get Dick Harlow of Harvard to come "With Faurot of Missouri—they'd sure make things hum.

"To work out plays—there's Bergman and Blaik "Fred Thomsen and Jennings and V. Green of Drake. "Of course, our scouts will be in the press box "Harmeson, Josh Cody, Bachman and Cox.

"Business managers? Oh, sure—we should have four, "Matty Bell, Irl Tubbs, Bunny Oakes and Moore. "Clark Shaughnessy—a good publicity man "Will keep us in the 'bright lights' if anyone can.

"Ducky Pond and Dick Romney could take care of travel "There's nothing too hard for them to unravel. "You could have Harry Stuhldreher be water boy "With Biff Jones to help him—a real McCoy.

"The stretcher bearers could be headed by Fry "With Mal Stevens and Layden standing by. "If more were needed—there's Sutherland and Shaw "A swell pair of beauties as ever I saw.

"With Bible and Madigan carrying head-gear "Pop Warner with towels—and far in the rear "Bob Zupke will lead in the mascot with care "My word, what a wonderful crowd will be there.

"You'll have plenty of help—we'll take care of that." He put his hand on my head and gave me a pat.

I opened my eyes—the man had fled The janitor's broom had hit my head. I'd had a dream—I know it now But while it lasted—it sure was a "WOW."

to dry. Sweat shirts and socks should be laundered often.

Follow these suggestions, and the care of your basketball squad and equipment will be just half the problem it might have been.

— F-A —

Fight The Flu

1. Drink plenty of water and fruit juices.
2. Don't over eat. Eat lots of green vegetables.
3. Have proper elimination.

4. Get lots of sleep.

5. Keep feet warm and dry.

6. Take some exercise - outdoors - every day.

7. Ventilate sleeping rooms, but avoid drafts.

8. Avoid crowds, wherever possible.

— F-A —

Start your order with a bottle of NITROTAN.

Take care of your team if you want them to take care of you!

OBSTACLE COURSE—

(Continued from columns 1 and 2, page 1)

Additional Suggestions

It is a good policy to make short breaks and clear the obstacle course of contestants occasionally. This may take 3 to 7 minutes, depending upon the length of the obstacle course. It will permit a quick checkup between the two recorders on the finish line and the recorder at the start.

By using letters of the alphabet in connection with the numbers, it is easy to separate groups, such as battalions or classes.

It is important that the timer and his assisting recorder be the coolheaded type. Contestants may bunch up at the finish, and if the officials freeze mentally, it is easy to make a mess of it.

Contestants can figure out their own running time, if they know their starting time, and listen for their finish time as it is called out.

General Suggestions

During our twelve months of experience in planning, constructing and operating obstacle courses, we have learned several lessons that may be of value to others.

The complete standardization of obstacle courses is not advisable because local conditions must be considered. Streams, hills, trees, rocks and other natural obstacles should be used to advantage. However, experience has shown that certain obstacles should be eliminated, because of extreme hazards and little value in training and conditioning. Here are some points to keep in mind when determining the order of obstacles.

- (1) The first 2 to 4 obstacles should be fairly easy, to avoid any bottlenecks.
- (2) The last 2 or 3 obstacles should not be too difficult and should not be high-climbing obstacles, in order to avoid injuries and falls when contestants are fatigued.
- (3) Obstacles should vary somewhat as to group muscles used; that is, if one obstacle is a climbing obstacle, where the use of the shoulder and the arms particularly come into play, the following obstacle should stress, primarily, the use of the legs.
- (4) The ideal distance between obstacles is from 20 to 30 yards.

Suggestions For Constructing Obstacle Courses

- (1) The course should be wide enough and the obstacle so built as to allow from 6 to 8 boys to run at one time. This will permit keener competition.
- (2) The lanes for the first 2 or 3 obstacles should be wider than those that follow, to permit 6 or 8 boys to run abreast. As the race continues, the contestants will tend to scatter along the course and there will be no further need for wide obstacles.
- (3) The obstacles should be built firmly. Peeled logs 6 to 8 inches in diameter are ideal for many of the obstacles. Use of logs gives the course a naturally rustic appearance and will also reduce expense.
- (4) Sharp points and corners should be eliminated. Landing places from jumps or vaults should have sand or sawdust, to prevent injuries.
- (5) The course should be constructed and marked so that it will be impossible to sidestep or detour obstacles. Signs should be placed to clarify any doubtful route.
- (6) If possible, the start and the finish of the course should be so planned, to allow one official to control both start and finish. A horseshoe-shaped course or one shaped in a figure 8 will definitely permit this.
- (7) If some of the obstacles prove too difficult for the contestants, an alternate course around the obstacles should be constructed; this alternate course should take more time to cover than the time required for going over the obstacles.

Suggestions For Order Of Obstacles

- (1) Hurdle (2½ feet).
- (2) Fence vault (4½ feet).
- (3) Log balance run.
- (4) Wall climb (7 to 8 feet).
- (5) Dodge run.
- (6) Bear trap.
- (7) Under-cover run with deep sand as base. (4 feet high, 60 feet long).
- (8) Hand over hand walk (9 feet high, 15 to 20 feet long).
- (9) Under, over, under.
- (10) Jungle maze.
- (11) High knee-action run.
- (12) Rope swings.
- (13) Tunnels (2½ feet high).
- (14) Fence climb (14 feet to 18 feet).
- (15) Straddle run.
- (16) Monkey climb. (Horizontal rope stretched across a sand pit 20 feet long and 7 feet high. Hands and feet used in hanging position - upside down).
- (17) A checkerboard run.
- (18) Under, over, under.
- (19) Hurdle.

Another good obstacle is the cargo net climb, about 18 feet high. The nets may be difficult to obtain at this time.

The age of the contestants must be considered in building the obstacle course. If the course is built for boys of junior high school age, naturally, the course should be much shorter and some obstacles lower. The length of the run assigned, of necessity, must depend upon the condition and age of the contestants.

A Few Additional Points

- (1) After running the course, the contestant should walk around until fairly rested.
- (2) No drinking of water should be permitted until contestants are well rested.
- (3) Contestants who have difficulty in certain obstacles should have special instruction on the proper way to negotiate these obstacles.

Training In

Basketball

From a training angle, basketball presents possibly four major problems. They are:

1. How to dry damp supporters, socks, and suits.
2. Shower temperature.
3. Protection of players in cold weather.
4. Preservation of on hand equipment.

(1). The drying of damp equipment is imperative from a health angle. Dampness promotes the growth of mold. Mold will hasten the destruction of the fabric.

This problem is one which must be answered by each coach. Dampness, the amount of available space, heat and ventilation, these must all be considered in arriving at a satisfactory answer.

(2). There isn't a great deal to be said about shower temperatures except that they must be kept down. The shower should be more of a rinse than a bath—where it is used daily.

(3). There is a lot to be said about player protection in cold weather, because playing form without health is of little value.

Protection of the head and neck from cold winds. Sudden cooling of the body. Shoes allowed to become damp and cold. The answer is obvious, and again it is a problem for each coach to handle individually.

We still think properly worded talks with your players will go a long way toward answering these problems.

(4). Preservation of your basketball, your basketball shoes, and other equipment is imperative - if you expect to continue play and help the war effort.

Keep the suits clean. Keep the basketballs cleaned and waxed with "Cramer's Liquid Ball Cleaner". Supporters should be washed in warm soap suds, rinsed in clear water and laid out, not hung out,