

## ATHLETIC STRESS: DEVELOPING COPING SKILLS THROUGH SPORTS

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### **INTRODUCTION**

Sport participation places both physical and psychological demands on athletes. From youth leagues to the professional level, athletes are forced to cope with the stresses that arise from competing head-on with others in activities that are important to the athletes and to others, such as parents, coaches, and peers. Some athletes learn to cope successfully with these stresses, and for them sports are enjoyable -and challenging. Others who are unable to cope find sport participation to be a stressful and threatening experience. There is no question that people differ in their ability to cope successfully with stressful situations. Such differences result primarily from the attitudes and coping skills that are learned during the childhood and adolescent years. Athletics can be an important arena in which such skills are learned. In a sense, the athletic experience can be a sort of laboratory for trying out and mastering ways of dealing with stress. Through their athletic experiences youngsters can develop attitudes, beliefs and coping skills that carry over into other areas of their lives. Childhood is the best time to learn stress-management skills. What can you, as a parent, do to help?

### **STRESS**

An examination of what stress is should give us some clues on how to cope successfully with it. We typically use the term stress in two different but related ways. First, we use the term to refer to situations in our lives that place physical or psychological demands on us. Family conflicts, work pressures, or school problems are examples of events that might cause us to say that "there is a lot of stress in my life right now." The second way in which we use the term is to refer to our mental, emotional, and behavioral responses to these demanding situations. Worry, anger, tension, or depression are examples of such reactions, as are loss of appetite, sleep difficulties, and inability to get one's mind off the problem. We are referring to such reactions when we say, "I'm feeling a lot of stress right now." In the accompanying figure, we present an analysis of stress that takes both the situation and the person's reactions into account. As you can see, four major elements are involved

The Nature of Stress Situation (Demands vs. Resource)	↓	↓	↓
	Mental Appraisal of situation of resources of consequences and their meaning	Physical Arousal	Coping Behaviors

The first element is the external situation that is making some sort of physical or psychological demand on the person. Typically we view our emotions as being directly triggered by “pressure” situations. The true emotional triggers are not in the external situation; they are in our minds. Situations in and of themselves have no meaning to us until we appraise them, which is the second element of stress. Through the process of appraisal, we perceive and give meaning to situations.

This evaluation process has several parts.

- First of all, we appraise the nature of the situation and the demands it is placing upon us.
- At the same time we appraise the resources that we have to deal with it. We judge, in other words, how capable we are of coping with the situation.
- We also judge the probable consequences of coping or failing to cope with the situation and the meaning of those consequences for us.

The emotional responses that we call stress are likely to occur when we view ourselves as incapable of coping with a high demand situation that has potentially harmful consequences for us. In response to such appraisals, our body instantaneously mobilizes itself to deal with the emergency, and we experience physiological arousal, the third element of stress. This inborn fight-or-flight response involves a general arousal of the body. Heart rate increase, blood is rushed to the muscles, blood pressure and muscle tension increase, perspiration may occur, and so on. All of us are familiar with the way our body becomes aroused when we perceive that we are threatened or in danger.

The fourth element in our analysis of stress involves the behaviors that the person uses in order to try to cope with demands of the situation. Responses may be mental, as when a quarterback tries to figure out which play to call, or they may be physical or social responses, such as shooting a free throw or dealing with an angry opponent.

## **HOW STRESSFUL ARE YOUTH SPORTS**

Researchers have used various approaches to try to measure the stressfulness of the youth sport setting. In several studies electronic devices were attached to children so that their physiological arousal could be measured directly, through a method known as telemetry. The instruments send a radio signal to a receiver so that physiological responses, such as heart rate, can be measured while the subject is behaving normally. These studies have shown that children can experience high levels of arousal during athletic contests, For example, heart rates averaging nearly 170 beats per minute have been recorded in male Little League Baseball players while they were at bat.

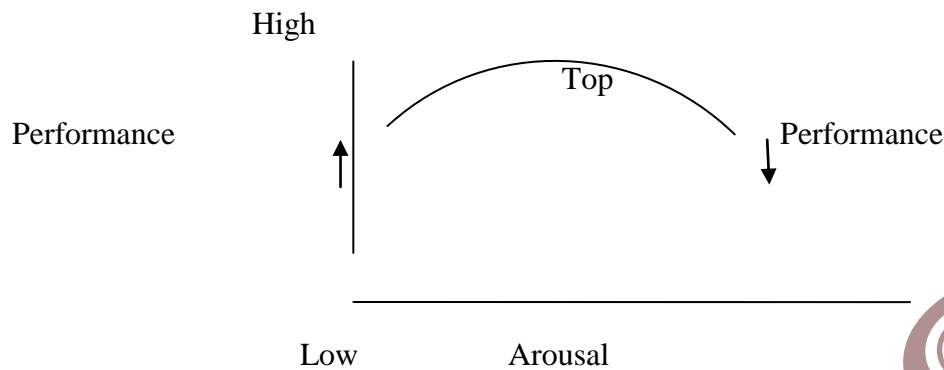
The research results suggest that sport participation is not exceedingly stressful for most children, especially in comparison with other activities in which children have their performance evaluated. But it is equally clear that the sport setting is capable of producing high levels of stress for certain children. Instead of finding athletic competition enjoyable and challenging, some children undoubtedly experience threats and anxiety in the competitive sport setting. Such youngsters could surely benefit from attempts to help them cope more effectively with the stress that threatens their enjoyment of the sport activity.

## **HOW STRESS AFFECTS YOUNG ATHLETES**

Fear and anxiety are unpleasant emotions that most people try to avoid. There is evidence that this is precisely what many stress ridden young athletes do. Avoiding or dropping out of sports is one of the ways some children escape from an activity they find threatening rather than pleasant. In recent years, the notion of burnout has received increasing attention in sports. Elite athletes and coaches have dropped out of sports at the peak of their careers, maintaining that they are too "burned-out" to continue. Likewise, youth sport authorities have become increasingly concerned about the large numbers of youth who are dropping out of sports during the adolescent years. While research suggests that in many cases, children drop out because they become more interested in other things, there is also concern that intense competitive pressure and too many sport demands may cause some youngsters to burn out and abandon sports. Sport burnout is a legitimate concern, since burned out athletes often show depression, loss of drive and energy, and a lowered sense of self-esteem that carries over into other areas of their lives.

Stress affects not only how athletes feel but how they perform. All of us have seen athletes fall apart or "choke" under high levels of stress. When under great stress, even gifted athletes can perform poorly. A key to understanding how stress affects performance is the relationship

between physical arousal and performance shown in the accompanying figure.



This relationship takes the form of an upside-down U. When arousal is absent or extremely low, athletes frequently describe themselves as flat and do not perform as well as they are able. As arousal increases, so does performance, but only up to a certain point. Beyond that optimal arousal point at the top of the inverted V, arousal begins to interfere with behavior, and we get a drop-off in performance. Research has also shown that the more complicated or difficult the task, the less arousal it takes to interfere with performance. Thus, it takes less arousal to interfere with a figure skater's or a golfer's performance than with a sprinter's or a weight lifter's.

High-stress athletes who cannot control their emotions are likely to experience higher-than-optimal levels of arousal and to perform poorly. The failure experiences that result only serve to reinforce these athletes' fears and undermine their confidence. Thus, a vicious circle involving anxiety, impaired performance, and increased anxiety can result. Many young athletes never succeed in achieving their potential in sports because of their inability to control their anxiety.

One other effect of stress should be noted. There is mounting medical evidence that high levels of chronic stress can impair health. The physical nature of the stress response taxes the resources of the body and appears to make children and adults alike more susceptible to illness and disease. Sports medicine specialists have observed many cases of health breakdowns of various sorts among highly stressed children.

Stress affects physical well-being in yet another way: Studies of both college and high school athletes show that stressful life changes are related to an increased likelihood of injury. Sports medicine specialists have also observed that athletes who find participation to be stressful and unpleasant often appear to take longer to recover from injuries. It may be that in some cases, an athlete finds in an injury a temporary and legitimate haven from the stresses of competition.

## NEGATIVE EFFECTS OF EXCESSIVE STRESS IN YOUTH SPORTS

The Nature of Mental Toughness One of the highest compliments that can be paid to an athlete is to be labeled mentally tough. Some coaches and athletes speak of mental toughness as if it were a quality that a person either has or does not have. In reality, however, mental toughness is not something we are born with; rather it is a set of specific, learned attitudes and skills.

The specific skills that constitute what we call mental toughness fall within the brackets of the stress model described above. Mentally tough athletes mentally appraise themselves and pressure situations in ways that arouse a positive desire to achieve rather than a fear of failure. Freedom from the disruptive effects of fear of failure allows them to concentrate on the task instead of worrying about the terrible things that will happen if they fail in the situation. Another specific skill that contributes to mental toughness is the ability to keep physical arousal within manageable limits. Somehow, these athletes are able to "psych up" with enough arousal to optimize their performance without being "psyched out" by excessive arousal. What mental toughness amounts to, therefore, is specific ways of viewing the competitive situation and skills relating to self-control and concentration.

The core of mental toughness is the ability to control emotional responses and concentrate on what has to be done in pressure situations. The mentally tough athlete is in control of his or her emotions and is calm and relaxed under fire. Such athletes do not avoid pressure; they are challenged by it. They are at their best when the pressure is on and the odds are against them. Being put to the test is not a threat but another opportunity to achieve. Mentally tough athletes are able to concentrate on the task at hand in situations where less capable athletes lose their focus of attention. They rarely fall victim to their own or others' self-defeating thoughts and ideas, and they are not easily intimidated. Finally, they are mentally resilient and have the ability to bounce back from adversity, their determination to succeed coming across as a quiet self-assurance.

It is no accident that mentally tough athletes tend to get the most out of their physical ability. Their level of performance seems to be more consistent and they have a tendency to perform at their best when pressure is the greatest. As a parent, you are in a position to help your young athlete develop the skills that comprise mental toughness. In doing so, you can help sports to serve as a catalyst in their personal development. Reducing Stress and Building Mental Toughness.

## **FEAR OF FAILURE: THE ATHLETE'S WORST ENEMY**

Aside from fears of physical injury that produce stress for some athletes, most athletic stress arises from the fact that sports are an important social situation. The athlete's performance is visible to everyone present, and it is constantly being evaluated by the athlete and by significant people in his or her life. Many athletes dread the possibility of failure and fear the disapproval of others. Some feel that their athletic performance is a reflection of their basic self worth; and they therefore have a great need to avoid failing. They are convinced that failure will diminish them in their own eyes and in the eyes of others. We are convinced that fear of failure is the athlete's worst enemy. The thinking of high-stress athletes is dominated by negative thoughts and worries about failing. Unchecked, these concerns with failure undermine confidence, enthusiasm, the willingness to invest and persist, and, most importantly, the athlete's belief in himself or herself. It is these thoughts that transform the competitive athletic situation from what should be a welcome challenge to a threatening and unpleasant pressure-cooker. It is these thoughts that trigger the high physical arousal that interferes with performance and with the ability to concentrate fully on the task at hand.

The ideas that underlie fear of failure do not arise in a vacuum. They almost always have been communicated to youngsters by their parents or by other important adults. This is not surprising, because the basic beliefs underlying such ideas are very widespread and accepted in our culture, which emphasizes achievement as a measure of personal worth. In our society, an untold number of children fall victim to their parents' demands that they perform exactly as expected, and to condemnations when they fail. Too often, the child's achievements are viewed as an indication of the worth of his or her parents, and failure brings reprisals based on the parents' feelings that they are to blame or that they themselves are inadequate. For many children, love becomes a premium handed out on the basis of what a child can do rather than simply on who he or she is.

The fastest and easiest way to create fear of failure in a child is to punish unsuccessful performance by criticizing it or by withholding love from the youngster. Under such circumstances, children learn to dread failure because it is associated with punishment or rejection. They also learn to fear and avoid situations in which they might fail. The unfortunate lesson they learn is that their worth and lovability depend on how well they perform. Instead of trying to achieve in order to reap the built-in rewards of achievement and mastery, children strive to perform well to avoid failure. They begin to measure themselves by their performance; and if their performance is inadequate, they usually

As a parent, you can have a dramatic impact on helping the young athlete develop a positive desire to achieve rather than a fear of failure. Earlier, we described four elements in the stress cycle: (a) the situation, (b) mental appraisal of the situation, (c) physical arousal, and (d) coping behaviors.

Efforts to reduce stress and build mental toughness can be directed at all four of these levels.

## **REDUCING SITUATIONAL STRESS**

The first way in which stress can be reduced is to change aspects of the situation that place unnecessary demands on young athletes. We are all well aware that coaches and parents can create stress by their actions. Many young athletes experience unnecessary stress because adults put undue pressure on them to perform well. Coaches who are punishing and abusive to children can create a very stressful and unenjoyable environment. Similarly, parents who yell at their children during games or withdraw their love if the young athlete lets them down can create a situation in which the youngster "runs scared" much of the time. Eliminating such actions by coaches and parents can reduce unnecessary stress.

Coaches enter into the life of a child for a limited period of time. But they occupy a central and critical role in youth sports and greatly influence the outcome of participation. Because of their key position, much of our research has focused on the psychological relationship between coaches and their athletes. As a result of a seven-year project, we developed a series of behavioral guidelines that proved effective in helping coaches to establish an enjoyable athletic environment. The guidelines are simply a set of principles that increase the ability to positively influence others, and they can help to reduce stress.

The positive approach emphasized in the coaching guidelines is specifically designed to counteract the conditions that create fear of failure. One of the most important differences between a positive approach to coaching and a negative approach is the kind of motivation that each produces. In a negative approach, punishment and criticism are used liberally in an attempt to "stamp out" mistakes. This approach operates by creating fear of failing. In contrast, the positive approach makes use of encouragement and reinforcement in an attempt to strengthen desirable behaviors. The motivation this kind of an approach develops is a positive desire to achieve and succeed rather than a negative fear of making mistakes. Thus, while both approaches may result in improvements in performance, they do so for different reasons and they create different types of motivation.

Under the positive approach, athletes come to see successful performance as an

opportunity to experience a reward. On the other hand, the athlete who has been coached by the negative approach comes to view successful performance as a way of avoiding punishment. It is not surprising that athletes coached with a positive approach come to see pressure situations as challenges and opportunities, whereas those subjected to a negative approach see the same kinds of situations as threats.

### **INCREASING THE ATHLETE'S RESOURCES: SKILLS AND SOCIAL SUPPORT**

Stress is experienced when we perceive an imbalance between the demands of the situation and the resources that we have to cope with the demands. It follows that another approach to reducing stress is to increase the young athlete's resources. Two types of resources are very important: (a) the skills that the athlete possesses and (b) the amount of support that the athlete receives from important people such as the coach, teammates and parents. Parents and coaches are in a position to influence both types of resources.

It is quite natural to feel insecure when we don't have the skills needed to cope with a situation. Many young athletes experience this insecurity when they first begin to learn a sport. As their athletic skills increase, they become better able to deal with the demands of the athletic situation, and their stress decreases. Thus, being an effective teacher and working with your child to improve skills is one way that you can help reduce athletic stress. Here, again, we strongly recommend the positive approach, since we feel this is the most effective way to teach skills and create a positive learning environment. As athletes become more confident in their abilities, they see themselves as more prepared to cope with the demands of the athletic situation.

### **DEVELOPING WINNING ATTITUDES TOWARD COMPETITION**

Earlier, we noted that we use the term stress in two different ways. One use of the term relates to situations that place high demands on us. The other refers to our response to such situations. The importance of this distinction becomes particularly clear when we deal with the role of mental processes in stress. There is a big difference between pressure situations and feeling pressure. Mentally tough athletes perform well in pressure situations precisely because they have eliminated the pressure. They report that although intellectually they are aware that they are in a very tough situation, they really don't feel the pressure on the inside. There is no way to eliminate pressure situations; they will always be there because they are a natural part of competition. This does not mean, however, that athletes have to respond to such situations by experiencing high levels of stress and getting "psyched out."

Mentally tough competitors manage pressure well largely because they have become disciplined thinkers. Either consciously or unconsciously, they have made the connection in their



own heads between what they think and how much pressure they feel during competition. They have learned (often the hard way) that thoughts like these produce pressure:

- What if I don't do well?
- I can't blow it now.
- I can't stand this pressure.
- I'll never live it down if I lose.

On the other hand, mentally tough athletes think like this in pressure situations:

- I'm going to do the best I can and let the cards fall where they may.
- All I can do is give 100 percent. No one can do more than that.
- This is supposed to be fun, and I'm going to make sure it is.
- I don't have to put pressure on myself. All I have to do is focus on doing my job the best I know how.
- I'm concentrating on performing rather than on winning or losing.

The first set of statements causes an athlete to react to adversity with stress and anxiety. The second set of statements focuses attention where it should be: on giving maximum effort and concentrating totally on what has to be done. Pressure situations become welcome opportunities, rather than dire threats, for mentally tough athletes.

Here are some specific attitudes that you can communicate to your child.

1. Sports should be fun. Emphasize to your young athlete that sports and other activities in life are enjoyable for the playing, whether you win or lose. Athletes should be participating, first and foremost, to have fun. Try to raise your child to enjoy many activities in and of themselves so that winning is not a condition for enjoyment.
2. Anything worth achieving is rarely easy. There is nothing disgraceful about it being a long and difficult process to master something. Becoming the best athlete one can be is not an achievement to be had merely for the asking. Practice, practice, and still more practice is needed to master any sport.
3. Mistakes aren't a necessary part of learning anything well. Very simply, if we don't make mistakes, we probably won't learn. Emphasize to your child that mistakes, rather than being things to avoid at all cost stepping stones to success. They give us the information we need to adjust and improve. The only true mistake is a failure to learn from our mistakes.
4. Effort is what counts. Emphasize and praise effort as well as outcome. Communicate repeatedly to your young athlete that all you ask is that he or she give total effort. Through your actions and your words, show your child that he or she is just as important to you when trying

and failing as when succeeding. If maximum effort is acceptable to you, it can also become acceptable to your young athlete. Above all, do not punish or withdraw love and approval when he or she doesn't perform up to expectations. It is such punishment that builds fear of failure.

5. Do not confuse worth with performance. Help youngsters to distinguish what they do from what they are. A valuable lesson for children to learn is that they should never identify their worth as people with any particular part of themselves, such as their competence in sports, their school performance, or their physical appearance. You can further this process by demonstrating your own ability, to accept your child unconditionally as a person, even when you are communicating that you don't approve of some behavior. Also, show your child that you can gracefully accept your own mistakes and failures. Show and tell your child that as a fallible human being, you can accept the fact that despite your best efforts, you are going to occasionally bungle things. If children can learn to accept and like themselves, they will not unduly require the approval of others in order to feel worthwhile.

6. Pressure is something you put on yourself. Help your young athlete to see competitive situations as exciting self- challenges rather than as threats. Emphasize that he or she can choose how to think about pressure situations. The above attitudes will help to develop an outlook on pressure that transforms it into a challenge and an opportunity to test them and to achieve something worthwhile.

7. Try to like and respect sport opponents. Some coaches and athletes think that proper motivation comes from anger or hatred for the opponent. We disagree. Sports should promote sportsmanship and an appreciation that opponents, far from being the "enemy," are fellow athletes who make it possible to compete. Hatred can only breed stress and fear. In terms of emotional arousal, fear and anger are indistinguishable patterns of physiological responses. Thus, the arousal of anger can become the arousal of fear if things begin to go badly during a contest. College football coach Tom Osborne preaches respect for the opponent because, in his experience, "Athletes who play in a generally relaxed environment where there's goodwill toward their opponents are less fearful and play better."

When children learn to enjoy sports for their own sake, when their goal becomes to do their best rather than to be the best, and when they avoid the trap of defining their self-worth in terms of their performance or the approval of others, then their way of viewing themselves and their world is one that helps prevent stress. Such children are success-oriented rather than failure-avoidant. Parents who impart these lessons to their young athletes give them a priceless gift that will benefit them in many of their endeavors in life.

## EXERCISE AND STRESS

Most sport and exercise psychology work on stress focuses on anxiety–performance, but a few scholars in our field have investigated other aspects of stress. Usually these investigations move away from competitive sport to exercise. Also, these more recent lines of research often take their cues from the growing health psychology literature rather than from the experimental and social psychology models that guided anxiety–performance research. Many of these health psychology topics (e.g., adherence, stress management, coping) have obvious connections to sport and exercise. Also, health psychology, probably more than any other psychology area, uses a bio psychosocial model that could provide a nice parallel framework for sport and exercise psychology.

Considerable health psychology work involves the stress–health link (e.g., relationships of stress to cardiovascular disease or immune function). You can think yourself sick, or think yourself well. We can look at direct links between activity and stress, or activity and health, but our greatest contributions may come when we use a more encompassing stress model as a framework to consider the role of physical activity within the stress process.

## APPLICATION OF STRESS

Models This concern for more encompassing models brings me to another way that sport psychology interfaces with stress research. We have adopted more encompassing stress models to provide a framework for some research and practice.

First, we have used stress models in the area of stress management. Ron Smith (1980), who has worked with psychological stress models in his broader psychology work, applied a cognitive stress model to stress management for sport. Specifically, Smith highlights cognitive appraisal as a key to the stress process. The model includes multiple interrelated variables, and the process moves over time. Extreme events may trigger stress, but the individual appraisal is the key. Similarly, the response is multidimensional, with physiological, psychological, and behavioral correlates and consequences. Smith developed a stress-management program with an integrated coping response, which involves both cognitive and behavioral strategies, as the key skill. With an integrated set of coping skills and possible strategies, the individual can then tailor coping responses to the situation and individual preferences.

More recently, Smith (1986) has taken a similar approach and has adopted the stress model to fit the particular constructs and relationships that are prominent for burnout. Similarly, Anderson and Williams (1988) applied the stress model to injury in sport. Again, injury is a stress process, highlighting cognitive appraisal in a multidimensional system, and the stress/injury model provides a framework for both research and practice.

The application of stress models in sport and exercise by Smith and others incorporates key features of Lazarus's model. These models highlight cognitive appraisal in a multidimensional system of interrelated

Psychobiological variables and the complexity of the model highlight the importance of individualizing applications. Given the almost limitless possibilities, the stress process is different for every individual, even with the same situation. This is one of the most important practical implications of the stress research. The complexity of the model makes universal principles or predictions virtually impossible. Stress is an individual process; coping with stress is an individual process; and sport and exercise psychologists should focus on individual characteristics and preferences rather than applying universal strategies to all. that threatens their enjoyment of the sport activity.

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