

# The Fatigue Syndrome

Nurses who recognize signs and symptoms of true fatigue can help patients obtain the treatment that they need to overcome it.

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**F**ATIGUE is one of the most interesting topics of conversation among physicians and nurses but, as is so true of many medical expressions, the exact meaning of the word "fatigue" is vague and indefinite. There are, of course, a great many ways of defining it. Fatigue should mean not the impairment of one's ability to function which comes after unusual or prolonged physical exertion, but rather the total inability to manifest interest, enthusiasm, concentration, and so on that is so commonly seen after prolonged combinations of physical and emotional distress.

Physicians see patients with this problem of fatigue much more commonly than most people realize. It is not unusual for a physician to find that at least two out of every three of his office patients have it. Admittedly, a patient does not always say, "Doctor, I am coming to you because I am fatigued." More often the diagnosis is arrived at only after laborious and extensive examinations involving many types of tests.

Examinations of this kind, which have been carried on at the University of Oregon Medical School by the Department of Psychiatry and the Department of Chemistry together, have revealed some very interesting things about the fatigue syndrome. The results of these experiments and our own observations make us feel that we are a little closer to truly understanding what the subject of fatigue covers.

## Similarities Among "Fatigued" People

At the University of Oregon, we have been interested for a long time in a group of individuals who are commonly designated as having anxiety states, or anxiety tension states, or, as we are more inclined to call them, simply "tension states." These individuals have similar characteristics. They are people of good

physical health who present the complaints and symptoms of generalized physical distress such as cold perspiring hands and feet, tightness of the neck muscles, a dry mouth, palpitation of the heart, disturbances in breathing, and gastrointestinal distress, as well as such other complaints as uneasiness, irritability, jitteriness, mood disturbances, anxiousness, and worry and concern over their physical, emotional and, at times, even their mental health.

These people usually have been clinically categorized as neurotic. Actually, however, they do not fall into this category. As we have indicated, they are individuals who are

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of good physical health, they present above all else anxiousness about their condition; they approach a physician very cautiously and expect a very thorough evaluation of their case. In the majority of instances there is little to account for their distress if one thinks only in terms of clinical pathology, such as tumors, infections, physical trauma, and blood vessel or degenerative diseases.

However, if one looks over the entire makeup of these individuals, he finds a common personality pattern. In their daily lives, they are very efficient and intelligent, carrying on a business or profession, or some other skilled occupation with unusual success. One will note, however, that even though they are successful in these ventures, they are

nevertheless distressed. Sometimes this distress is revealed in hypertension, ulcers, colitis, migraine, and other bodily disturbances, commonly thought of as psychosomatic disorders. In just as many instances, however, the patients do not have such common clinical conditions. They often have learned to be cautious about their complaints, because physicians have not been able to find anything pathologic to account for their disturbances. They probably have been told to "quit worrying and go home and forget it." This usually makes patients think carefully before consulting another doctor.

As we have said, these people have unusual ability. They are above the average in intelligence; they have been richly endowed at birth with good health, and a good physical physique. They are often described as "sensitive," but we wonder if by "sensitive" we don't actually mean that they have a physical machine that is much more alerted to—or much more easily alerted to—its environment than the average individual's is. They usually have been raised meticulously by parents who themselves were somewhat tense, high-strung, and nervous. The combination of these plus a tendency to approach things somewhat over-perfectionistically—a trait also learned from parents and earlier environment—has resulted in their knowing only one way of living, namely, to work hard and conscientiously, to keep trying, and to "fight to keep going." They try to do every job as quickly and as conscientiously close to perfection as it possibly can be done. From many standpoints, they might seem to be the best prepared for successful living. Up to that point we may think that we are much like them, for most of us are perfectionists, too.

Actually, however, there are certain distinct differences between these people and the average "tense" persons whom we see in our daily contacts. The difference is in the manner in which these people have been taught to manage their own affairs. They have been trained to tighten up and keep going, irrespective of what happens to them. To tighten up and keep going actually is the same physical reaction that we all have in an emergency. Our heart races, our stomach is tight, our hands and feet are cold and clammy, and so on—the typical reactions that we attributed to tense people. But if we have been trained early in life to keep a grip on ourselves, to get hold of ourselves, to keep going, above all else, we can expect, if we do get tense, to be able to control this ten-



### Modern Locker Room

An official opening, complete with ribbon cutting, refreshments and speeches, marked the completion of the new lounge and locker room, located in the sub-base-ment of the nurses' residence at the New York Hospital.

The new locker room has thermostatically controlled air conditioning, indirect lighting, make-up mirrors at the end of each group of lockers, and a large full-length mirror on one wall.

The coral walls contrast softly with the turquoise-colored lockers and the ivory plastic covering of the benches. Three hundred and ninety-six lockers are available; equipment for pressing uniforms and cleaning shoes is provided in a utility room.

The lounge, across the hall, is decorated in light green and grey and offers the nurses a pleasant air-conditioned spot for off-duty relaxation.

sion. As soon as the emergency is over we relax and return to normal.

A person who is habitually tense and high-strung is not so lucky, however. Actually, from the clinical point of view, he is using tension to control tension. Eventually, the capacity of his body to prepare for further emergency becomes exhausted. He has no adrenalin to pour out, and his tense muscles haven't been able to store the energy that his body needs to meet emergencies. We have proven in our studies of tense people that the various chemicals normally present in body musculature are greatly depleted in tense, fatigued people. As a result then, we find that fatigue can be actually demonstrated as a biochemical deficiency in people who have been tense to a greater degree over a longer period of time than their bodies can handle.

### Learning to Relax and Rest

We are, of course, all interested not only in the explanation of fatigue, but also in what can be done to help an individual overcome it, and to prevent it from developing in people who are so extremely keyed

up and tense that it is bound to appear eventually.

We have learned over a period of years that irrespective of what general philosophy one may have, what theories one may use, or regardless of what is found to be the exact causative factors in producing these fatigue states, there still remain certain rather simple measures for treating them. We believe that fatigue is after all a complication, an end result, really, of prolonged tension. Tension to us is a physical phenomenon, which, of course, has its emotional and psychological characteristics. But basically it is a physical phenomenon and it must therefore be thought of and dealt with from a physical point of view.

All of us learned our methods of living in a very definite way while we were very young. If you will look around you, you will see children learning to do certain things slowly and laboriously which 20 years from now they will have no recollection of having done in this manner. Actually, tension belongs in the same general category. Whether or not it resulted from psychological trauma, emotional distress, a poor family pic-

ture, or unusually disturbing situations early in life, nonetheless it is a pattern of behavior which was learned in childhood. For the body to quit being tense is really as difficult as it would be for us to quit using the language we speak. It is ingrained so deeply that simply thinking about it or knowing what caused it are insufficient reasons to bring about any change.

We have emphasized these points for it seems to us that simply explaining the cause of an individual's fatigue will not permit him to abolish it. To change any behavior pattern we must actually learn something new to bring the change about, so we may then abandon the behavior with which we are through. In other words, we must learn a different method of living.

### Techniques of Relaxing

In helping a tense person to relax, we must follow a simple program. We must go over that program until we know that he understands it. We must continually add to the details of the program until it is broad enough to cover all the person's needs. We must have him practice the techniques often; we must frequently review what has been told and shown him, and we must keep him working at it regularly in such fashion that it eventually becomes the routine or habit pattern that we desire him to have. This is a true re-educative program.

These, briefly, are the techniques that we use. In the first place the physician explains to the patient the physiologic nature of the symptoms of which he complains. To do this adequately, the physician must himself be well-oriented in the physiology of the human body and particularly the physiology of the emotions. The physician must understand immediately that the patient's fatigue is based, not so much on what he thinks is causing it, but upon the presence of the underlying more basic disturbance, namely, the physiologic tenseness.

Getting these things across to the patient is the responsibility of the physician, who must temporarily drop his role as therapist, and take up his responsibility for teaching the patient about his body and how to live comfortably with it.

As we proceed to teach the patient about his symptoms, how they came about, what they mean, and what they have resulted in, we also teach him practical techniques in physical relaxation. The ability to relax depends upon the entire neuromuscular system's ability to learn sufficiently well a technique of "let-

ting down" so that it is present automatically or involuntarily in the same manner that the individual's ability to balance himself when he is walking is automatic and involuntary.

We have on our staff a number of particularly well-trained registered nurses whom we have coached for a long time in how to teach patients to practice techniques of relaxing. Immediately following our daily or weekly interviews with the patients we have them practice with a nurse the techniques that we think each patient should know. This often proceeds from learning how to tighten and then "let go" the muscles in the forearm to recognizing the tension in a great many muscles of the body and knowing how to let them relax and thus get rid of the tension. At first, they do this consciously on a voluntary basis, then as their ability increases they will relax their tense muscles without really thinking about what they are doing.

A great deal of time could be consumed in describing these relaxing procedures. The purpose of this paper is not to describe them, however, but rather to point out that they exist and that physicians and their assistants, either nurses or physical therapists, can find excellent information on this subject in the references listed at the end of this article. These references are intended for the physician and the nurse—not for the patient until he is sufficiently well acquainted with the techniques and procedures to understand what he is reading.

### How One Patient Banished Fatigue

One of the patients whom we were able to help was a 27-year-old, single woman—a graduate in business administration from a state university—who is an assistant buyer in a large department store. She came seeking help for a state of blueness and despondency associated most recently with fatigue, insomnia, irritable stomach, periods of breaking down and crying, and a feeling of utter hopelessness in ever accomplishing anything at her job. Simply by sitting back and observing her as she talked the physician could identify, in the first few minutes of the initial interview, her tenseness and fatigue. He immediately told the patient and pointed out that these conditions were based on rather simple physiologic facts which she should know and understand. He assured her that she could learn relaxing procedures which would help her to overcome her tenseness and thus eliminate her insomnia, moodiness, and so on. Fol-

lowing the doctor's initial instructions his assistant, a professional nurse, spent a half hour with the patient having her lie down, showing her very simply how to "let go" as much as she could on her own, and then assisting her to relax a great deal more by first tightening certain of her muscle groups and then relaxing them as much as she could with some assistance.

Immediately following this, the physician again told her how to utilize the simple techniques that the nurse had had her practice.

The patient came to the office three times a week to repeat the procedures until she understood what she was dealing with, what her symptoms meant, how she could control them by the simple techniques of relaxing that she had learned, and how she could progress from letting down and relaxing in a reclined position to using the same techniques while sitting, standing, or even while she was in motion. She learned that with continued practice and instruction these voluntarily learned techniques would become entirely automatic so that she would be able to relax without thinking about it.

For this particular patient, it required about seven weeks or approximately 23 interviews with the doctor and 23 practice periods with the nurse to produce a thoroughly relaxed, confident individual. She has reported

regularly for the last four years and has, in no way, shown any return of her original symptoms or distress.

### How the Nurse Can Help

It is extremely important for a nurse to recognize tension and fatigue. She is continually helping with the care of office or hospital patients. If she is inclined to misunderstand their tension and fatigue, if what she says shows that she is critical, she increases the patients' tension; then she will be doing neither the patients nor the patients' physician any real benefit, irrespective of her efficiency otherwise. If the nurse is prepared to understand tension and fatigue well enough so that she can recognize the symptoms, then she can do a great deal extra to help many patients. If she desires to go further and learn some of the ways to keep extreme physical tension from developing and, if she learns about variations in the techniques of teaching relaxation which she can show the patient under the doctor's guidance, then she can be a valuable assistant to him as he teaches patients how to live in a truly relaxed manner.

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### Hot Air Versus Sterile Towel for Drying Hands

There are several possibilities of bacterial contamination inherent in the drying of the hands and forearms following preoperative scrubbing. Contamination by dust-carried airborne bacteria is one of these. The degree of such contamination will vary with the amount of circulating dust, duration of exposure, and moisture content of the air. Since most operating room layouts are similar, these factors will probably be fairly constant among different hospitals. Scrubbing techniques differ somewhat, but the differences are not great enough to allow much variation in the elimination of bacteria. It is in the drying of the hands that the greatest possible opportunities for contamination exist. In the use of sterile towels for drying, these opportunities are the greatest. Improper rotation of the towel during drying, the touching of the scrub suit or of the unscrubbed portions of the upper extremities, all offer great probabilities of gross contamination.

It would seem that simple air drying of the hands would eliminate these probabilities of con-

amination. Such a method further has the advantage of elimination of more costly methods of drying. However, it is slow, physically uncomfortable, and may cause chapping of the skin.

To overcome all these difficulties, it seemed to us that the mechanical air dryer had definite possibilities. Before accepting such a device for use, however, it had to be determined whether or not the forcing of warm air over the extremities would increase contamination, and whether or not it would be economically practicable. A study was undertaken to determine these two points.

*Results.*—Bacteriological studies of 304 cultures, taken from groups of surgical personnel after use of a standard scrub technique, showed a probably significant reduction of gross contamination of the hands when a mechanical air dryer was used. The mechanical air-drying technique is less expensive than the towel-drying technique.—WALKER, PAUL E. Mechanical air drying of hands following preoperative scrubbing, *Pub. Health Rep.* 68:317-319, Mar. 1953.