In the long term, stress destroys. It destroys health and youthful looks. So no youth preservation and rejuvenation programme would be complete without offering a means of neutralising the negative effects of stress on the body. Drug-based therapy is not the answer: the 650,000 tons of Valium consumed yearly in the world have unpleasant and dangerous side-effects, ranging from addiction to acute rage reactions, withdrawal, long-term worsening of anxiety symptoms, sub-clinical vitamin and mineral deficiencies, aggressiveness and even acute psychotic episodes. New evidence also indicates that taking tranquillisers may encourage the growth of tumours, impair neuromuscular co-ordination and even make takers more prone to road accidents. But quite apart from the detrimental effects of these drugs on mind and body, the fact that they treat only the symptoms of stress overload and do absolutely nothing towards eliminating the causes means they can never make a positive contribution to health.

Autogenic Training, by comparison, does contribute to health. In fact it is probably the most effective simple technique for dealing with stress ever developed in the West. A thorough, comprehensive and highly successful deep relaxation technique developed in 1932 by the German psychiatrist Johannes H. Schultz, AT consists of a series of simple mental exercises designed to turn off the 'fight or flight' mechanism in the body and turn on the restorative rhythm associated with profound psychophysical relaxation. It is a method which when practised daily brings results comparable to those achieved by Eastern meditators. And it is particularly appealing to the Western mind because, unlike many forms of meditation and yoga, it has no cultural, religious or cosmological overtones and requires no special clothing or unusual postures or practices. But perhaps most appealing, as the name implies, is that it is generated from within: the person practising AT has no external values or philosophies imposed upon him or her.

Schultz was a student of the clinically orientated neuro-pathologist Oskar Vogt, who at the turn of the century at the Berlin Neurobiological Institute was deeply involved in research on sleep and hypnosis. Vogt remarked that some of his patients who had been subjected to conventional forms of hypnosis soon developed the ability to put themselves in and out of a hypnotic state (or rather auto-hypnotic, since it was self-induced). He noticed that these patients experienced remarkable relief from tension and fatigue and also tended to lose whatever psychosomatic disorders they had been suffering from. Schultz drew on Vogt's observations and went on to design techniques for individuals to be able to induce this deep mental and psychological relaxation at will.

Schultz noticed that people entering the auto-hypnotic state experienced two specific physical phenomena: the first was a sensation of heaviness in their limbs and torso, and the second a feeling of diffuse warmth throughout the body. The feeling of warmth is the result of vasodilation in the peripheral arteries and the
sensation of heaviness is caused by deep relaxation in the body's muscles. Schultz thought that if he taught people to make suggestions to themselves that these things were happening to their bodies he could rapidly and simply introduce them to the state of 'passive concentration' which characterises the auto-hypnotic state and can be used to exercises great influence over the autonomic nervous system to restore imbalances which prolonged stress has brought about.

Until then the autonomic nervous system had been considered beyond the realm of conscious control. The autonomic nervous system has two branches - the sympathetic and the parasympathetic. They are more or less opposite in their actions and together they govern bodily functions and reactions such as gastric secretions, the flow of adrenaline, the arousal that goes with the fight or flight stress reaction, constriction and dilation of blood vessels, heart rate, breathing and lots of other bodily changes which we cannot consciously control. The sympathetic branch is concerned with arousal - an active dynamic state associated with stress and necessary for movement and for accomplishment in life. The parasympathetic branch is concerned with psycho-physiological relaxation, with recuperation and with the proper functioning of the body's internal organs. The two branches are designed to work in perfect balance. And the secret of making stress work for you rather than against you is simply being able to move at will from a sympathetic-dominated state to a parasympathetic-dominated one and back again.

Most people tend to get stuck in the sympathetic-dominated stressed state: gradually symptoms of anxiety, depression, insomnia and strain appear, and sometimes more serious stress-related conditions such as coronary heart disease, high blood pressure, ulcers, migraine and exhaustion. What Schultz found in his studies was that his patients appeared to be developing a capacity to switch from the sympathetic to the parasympathetic dominated state so that they no longer remained trapped in a stressful one. Indeed the simple practice he'd developed appeared to go further even than that. The patients not only found themselves able to deal with current stress levels easily in a way that was difficult to describe, they also appeared to eliminate 'old' stress which had accumulated in the body. With this came improved mental and bodily functioning plus the apparently automatic elimination of maladaptive behaviour as well as whatever neurotic or psychosomatic symptoms accompanied it. It was quite a discovery - the scientific community found it hard to believe something so simple could have such a profound effect.

The early researchers had uncovered the fact that in this state of 'passive concentration' all the activities governed by the autonomic nervous system could indeed be influenced by the person himself - not by his exercising any conscious act of will but rather by learning to abandon himself to an ongoing organismic process. This strange paradox of self-induced passivity is central to the workings of AT. It also closely parallels the so-called passive volition of biofeedback training and meditation. It is a skill which Eastern yogis, famous for their ability to resist cold and heat, to change the rate of their heartbeat, levitate and perform many other extraordinary feats, have long practised. But until the development
of biofeedback and AT and the arrival of Eastern meditation techniques, this passive concentration largely remained a curiosity in the West, where active, logical, linear, verbal thinking is encouraged to the detriment of innate abilities to simply experience. In fact, many psychologists and physicians working in the field of stress studies and stress control believe that it is overemphasis on the use of the conscious will in the West that makes us so prone to stress-based illnesses in the first place.

To help his patients induce the autogenic state, Schultz worked first with the sensations of heaviness and warmth and then added suggestions about regularity of heartbeat and gentle quiet breathing - two more natural physiological characteristics of relaxation. He then went on to the sensation of abdominal warmth and coolness in the forehead. These six physiologically-oriented directions - heaviness and warmth in the legs and arms, regulation of the heartbeat and breathing, abdominal warmth and cooling of the forehead - became the core of autogenic training and are known as the Autogenic Standard Exercises. The person practising AT goes through each of the six steps, one by one: 'My arms and legs are heavy and warm, my heartbeat is calm and regular etc.' each time he practises. Because of the body’s and mind’s ability with repetition to slip more and more rapidly into the deeply relaxed but highly aware AT state, the formula becomes increasingly shortened until after a few weeks or months of practising three times a day a state of profound psycho-physical relaxation can be induced at will. And once the exercises have been mastered they can be practised anywhere - even sitting on a bus.

The benefits of being able to do this are innumerable, some of them instant - such as being able to counteract acute stress or fatigue, refresh yourself mentally and physically and clear your mind for better thinking - and others long-term. Patients with high blood pressure have experienced drops in systolic blood pressure of from 11 to 25 per cent and more, as well as a 5 to 15 per cent diminution in diastolic pressure. Brain-wave activity changes so that there is a better balance of right and left hemisphere (see Harpers & Queen August issue on the brain), leading to improved creativity at work and in relationships and a better sense of being at peace with oneself. Recoveries from bronchial asthma and a whole range of other psychosomatic disorders have been reported, as well as highly successful modification of self-destructive behaviour patterns and habits such as drug taking, compulsive eating and alcoholism. According to Wolfgang Luthe, Schultz's successor, now considered the world expert, Autogenic Training can help cure respiratory disorders such as asthma and tuberculosis, irritable colon, peptic ulcer, ulcerative colitis, obesity, sexual dysfunctions, hypertension, cardiac arrhythmias, low back pain, endocrine and metabolic dysfunction such as diabetes and functional thyroid disorders, and neurological disorders such as epilepsy, cerebral palsy and neuralgia.

The basic AT exercises are simple. Taking up one of three optional postures - sitting slumped rather like a rag doll on a stool, lounging in an easy chair, or lying on your back with your arms at your side - you make sure you are reasonably protected from noise and disturbances and that your clothes are loose and comfortable. You close your eyes and focus your attention on your arms, one at a
time, with the suggestion 'arms are heavy' several times. Then go on to 'legs are heavy' then 'arms and legs are warm' and so on, working through the six steps. As the exercise gets familiar it is simplified and instead of having to go through each limb separately, the suggestion 'my right arm is heavy' will trigger the psychophysical relaxation process in the whole body. (Some people get feelings of heaviness and warmth immediately, for others it takes as long as a week or two of practising three times a day for 10 or 15 minutes at a time. But for everyone it comes eventually and with it a profound sense of relaxation.) At the end of the series of self-directed instructions, you cancel the training session by clenching your hand into a fist and drawing it briskly to your shoulders, taking a deep breath, and then stretching. This brings about an immediate return to normal consciousness although the temporary excursion into the realms of deep relaxation which you have just experienced continues to exercise benefits.

Just why this simple mental exercise should bring about such profound benefits is at least a partial mystery. The neurophysiological mechanism by which the autonomic nervous system is controlled is not completely understood, but Luthe offers an explanation which is in line with current neurological theories about how mind and body interact: "Autogenic Training involves self-induced (autogenic) modifications of corticodiencephalic interrelations, which enables natural forces to regain their otherwise restricted capacity for self-regulatory normalisations ... the function of the entire neurohumoral axis (cortex, thalamus, reticular system, hypothalamus) is directly unilaterally restricted to either bodily or mental functions." In other words, AT brings about a state of passive concentration which lets the mind and body work towards more harmonious functioning. It appears also to remove conflicting information between cortical and sub-cortical processes so that you can achieve a higher level of psychosomatic well-being.

One of the most common questions asked about AT is how it differs from various Eastern meditative techniques such as transcendental meditation and Zen. Although AT brings about a similar 'low-arousal' state, where parasympathetic activity dominates, unlike classical meditation it stems from exercises meant specifically to induce simple physical sensations leading to a state of relaxation of a purely physical nature. But the experiences which accompany its practice are fascinating: in addition to slowing the heart-beat, reducing blood pressure and improving the depth of respiration, changes in the reticular activating system in the brain stem can bring about what are known as 'autogenic discharges'. These appear to be a spontaneous way of 'de-stressing' the body and eliminating old tensions. Autogenic discharges can manifest themselves as temporary twitching of the arms or legs (much like the twitch experienced occasionally on falling into a deep sleep) during the session itself, or increased peristaltic movement (stomach grumbles) or various transient feelings of dizziness or visual or auditory effects. These phenomena are completely harmless and usually quick to come and go and, according to autogenic practitioners, are an important part of throwing out life-accumulated disturbing material from the brain.

Because of these effects it is recommended that AT is taught under medical
supervision - by a psychotherapist or psychotherapist in liaison with a physician who has himself been trained in the technique.

Once the initial basic training in AT has been mastered, participants can go on to explore more subtle psychological aspects and to experience altered states of consciousness and develop a higher degree of autonomic control. In the advanced stages of AT, participants have demonstrated abilities to anaesthetise themselves, for example against third-degree burns, and to explore areas of symbolism and fantasy which can be useful in resolving internal dilemmas and conflicts. Numerous reports of self-healing have come from people who have gone on to explore advanced AT. And some experience breakthroughs of consciousness which parallel those achieved in advanced stages of Eastern meditation. But whatever AT's more esoteric abilities, the most important of its virtues for those intent on preventing premature ageing is the way in which, practised regularly, it makes it possible to deal with stress while helping to prevent the development of stress-related illnesses.

Courses consist of one-hour sessions for individuals and one-and-a-half-hour sessions for groups once a week for eight to ten weeks.