

## VI

### *When and How to Rest*

No more general remedy for fatigue as well as for many diseases exists than rest. Here the normal bodily processes operate without interference of muscle tensions and the resulting spread of accumulated toxins throughout the body. The time and place of useful rest depend, among other things, on health, age, sex, energy, and the type of work. No general rules can be set forth.

All movements of the body, however, cause the adrenal glands to release adrenin into the blood stream, thus causing the liver to release glycogen and the heart to speed up. One minute of such a simple activity as getting up and walking about is enough to stimulate the whole body with adrenin for twenty-two minutes.

Conversely, the inhibiting of bodily motions checks the flow of adrenin and glycogen. Thus too are the emotions of rage and fear prevented or at least minimized. A person who sits absolutely still for long stretches conserves his energies admirably, *provided he is relaxed and not under tensions*. So it is easy to understand why, if his energies incline to be low, he works

out a day's program which allows for many such periods of total rest. He is doing much more than easing up on his muscles. He is retaining in his liver a precious fund of that amazing form of energy, glycogen, one ounce of which, when burned in the body, would lift one ton to the height of 165 feet!

No matter what you do, you tap your energies best by short, frequent periods of rest. These allow prompt recovery from muscular contraction, and from the tiny tensions that occur in mental fatigue. The length of the rest periods should vary with the type of work. But long intervals are extremely inefficient.

Industrial workers doing "light-heavy" muscular work for eight hours a day prove this general law. They accomplish as much in a single day of short, frequent rest intervals totaling about an hour and a half as in *fourteen* days of long, infrequent rests! \*

The United States army has long practised this pattern of work-rest cycles. Field regulations for marching infantry require the following procedure, which enables seasoned infantry to march for six days a week as long as necessary.

The men march for forty-five minutes. Then they halt, adjust their packs, and rest for fifteen minutes. Thereafter they march fifty minutes and rest ten for the balance of the day, except for a noon halt of an hour, if possible, when they rest and eat.

\* Shepard, "Effect of Rest Periods on Production."

Ordinary people recover completely from fairly severe exercise of half a minute to a minute in twenty minutes of rest, as A. V. Hill has shown.\* But nine-tenths of full recovery takes place in seven minutes. And often when severe efforts must be made, even two or three minutes of rest allow time for nearly adequate recovery.

Take a vacation every day. If you do this, you may never need a vacation of the sort people usually take.

The body operates on a twenty-four hour cycle. It cleans out all fatigue poisons (so-called) within the span of a single earth-spin. Waste products are eliminated, and exhausted reserves of chemical energy refilled. Hence it follows that the only rest which a healthy person needs, *so far as genuine exhaustion is concerned*, must be taken within the day's round. If not then enjoyed, you cannot make it up later.

So there is a profound sense in which you ought to live from day to day. It is not the usual sense of the command; it is quite different. Think of your intake and output of energy as a financial problem of making ends meet; then study it as a bookkeeping problem also—as A. V. Hill has done. Remember that, when you arise in the morning, the books must be balanced—somehow. If you have failed to replenish your vital stores, it is only a matter of days before you break down.

\* "Living Machinery."

The ordinary summer vacation is a delusion and a snare, in so far as you use it as a rest period. For many people, like myself, it is a detestable—and often impossible—interim of idiocy. The rare and long vacation has a wholesome function for only one sort of person—and that is for the man who is bored by his job or the woman who has lost all joy of domesticity. Emotional exhaustion, to be sure, may demand a complete break with depressing, stale routine. The sincere vacationist is running away from something—it may be from his work, or from his social web, or from himself.

#### THE ANGLE OF RELAXATION

People differ greatly in the angles at which they relax best. If your margin of free energy is relatively low, you will have a normal tendency to lie down; when it is very wide, lying down causes restlessness.

The slowing down of bodily activity when in the horizontal position produces a variety of effects. Broadly speaking, these manifest themselves first and most strikingly at the point of least energy relative to momentary balance. For instance, two marked types of alimentary disturbances are associated with changes in position after eating. Some persons are cursed with stomachs which respond so feebly and slowly to the stimulus of food because some other part of

the body tends to monopolize its free energy. So before the stomach can function well, the segment monopolizing energy must be partly deprived of that power.

In some people, this dominant segment is the cerebral cortex. They tend to think so actively while eating that gastric reaction is delayed until they have thrown themselves down for a nap. Sleep cuts off energy flow to and from the over-active part of the cortex, and thus enables the stomach to become a new focus of equilibrium.

A reverse pattern appears in other people. If they lie down after eating, their general activity slumps so badly that stomach reactions virtually cease, at least long enough to cause brief trouble. In one man of this sort, his cortex is quite as lively when he dozes as when he is awake and moving about, while his alimentary activity is reduced.

You use up more energy when lying flat on your back than reclining at the angle of a steamer chair. And Amar \* finds that the position most favorable to complete rest is lying on the stomach, preferably inclining toward the right side.

I relax best when sprawled in an ordinary chair with legs and feet stretched out in any comfortable position, head and neck resting at a

\* "The Physiology of Industrial Organization." Jules Amar. London. 1918.

slight angle on the top of the chair. Often when reading and studying, I relax best of all when standing.

Amar finds interesting comparisons in three erect positions. Two are anatomically symmetrical, one asymmetrical. In the first, the head is up, chest out, the heels touching in the most approved physical hygienic manner. This position, he says, causes fatigue. The "convenient attitude," with head slightly forward and shoulders somewhat rounded, contracts the muscles less and uses less energy than the former position. Best of all, though, is the "easy attitude," which reduces energy expenditure to a minimum. Here the position of the body is asymmetrical. One foot and leg are placed slightly ahead of the other, with knee somewhat bent, hand resting on the hip. The weight of the body is carried by the other foot, the forward limb merely maintaining balance.

#### GOING INTO THE SILENCES

Perhaps you have laughed at people who "go into the silences" as a regular habit. Laugh no more! It may be that you never need to emulate them, but they have found a useful method of controlling their energies; and if it serves them well, it is silly of you to belittle it.

Many distinguished people, especially those who use their voices professionally, have found prolonged silence indispensable as a habit.

The still remembered prima donna, Patti, always refrained from conversation throughout the entire day preceding an evening performance at the opera. And the even greater Duse almost always kept mute both before and after acting. More than half of the famous public lecturers and orators now in the public eye use this method more or less. Lecture agents and managers have told me that a check-up of practices shows this, and I well believe it; for I know several able speakers who regularly refrain from all talk.

True, individual differences in this respect must be great indeed. There are always freaks like Voltaire who literally live on talk and expand on declamations; they would perish if forced to shut up. Most of us, though, would gain something now and then by exercising stern control over man's greatest enemy, his tongue. Control is hard. No set of muscles succumbs more stubbornly to sustained suppressive efforts than those used in speech. At certain ages children seem impotent here. So do many women and a few men.