

FAT AND BLOOD

BY

S. WEIR MITCHELL, M.D.

# FAT AND BLOOD:

AND

## HOW TO MAKE THEM.

BY

S. WEIR MITCHELL, M.D.,

MEMBER OF THE NATIONAL ACADEMY OF SCIENCES; <sup>1867.</sup>PHYSICIAN TO THE ORTHOPEDIC HOSPITAL AND INFIRMARY FOR DISEASES OF THE NERVOUS SYSTEM; FELLOW OF THE PHILADELPHIA COLLEGE OF PHYSICIANS; MEMBER OF THE AMERICAN PHILOSOPHICAL SOCIETY; MEMBER OF THE NEW YORK ACADEMY OF MEDICINE; ASSOCIATE FELLOW OF THE AMERICAN ACADEMY OF ARTS AND SCIENCES, BOSTON; HONORARY MEMBER OF THE NEW JERSEY STATE MEDICAL SOCIETY; HONORARY CORRESPONDING MEMBER OF THE BRITISH MEDICAL ASSOCIATION; HONORARY MEMBER OF THE ST. ANDREW'S MEDICAL GRADUATES' ASSOCIATION; FOREIGN ASSOCIATE OF THE ROYAL MEDICAL SOCIETY OF NORWAY; AUTHOR OF "A TREATISE ON INJURIES OF THE NERVES," "WEAR AND TEAR," ETC.



PHILADELPHIA:

J. B. LIPPINCOTT & CO.

1877.

# CONTENTS.

---

	PAGE
CHAPTER I.	
INTRODUCTORY . . . . .	7
CHAPTER II.	
FAT IN ITS CLINICAL RELATIONS . . . . .	9
CHAPTER III.	
SECLUSION . . . . .	34
CHAPTER IV.	
REST . . . . .	36
CHAPTER V.	
MASSAGE . . . . .	51
CHAPTER VI.	
ELECTRICITY . . . . .	62
CHAPTER VII.	
DIETETICS AND THERAPEUTICS—GENERAL RESULTS— . CASES . . . . .	71
1*	5

## CHAPTER IV.

### REST.

I HAVE said more than once in the early chapters of this little volume that the treatment I wished to advise as of use in a certain range of cases was made up of rest, massage, electricity, and over-feeding. I said that the use of large amounts of food while at rest, more or less entire, was made possible by the practice of kneading the muscles and by moving them with currents able to effect this end. I desire now to discuss in turn the mode in which I employ rest, massage, and electricity, and, as I have promised, I shall take pains to give, in regard to these three subjects, the fullest details, because success in the treatment depends, I am sure, on the care with which we look after a number of things each in itself of slight moment.

I have no doubt that many doctors have seen fit at times to put their patients at rest for great or small lengths of time, but the person who of all others within my knowledge used this means most,

and used it so as to obtain the best results, was the late Professor Samuel Jackson. He was in the habit of making his patients remain in bed for many weeks at a time, and, if I recall his cases well, he used this treatment in just the class of disorders among women which have given me the best results. What these are I have been at some pains to define, and I have now only to show why in such people rest is of service, and what I mean by rest, and how I apply it.

In No. IV. of Dr. Séguin's series of American Clinical Lectures, I was at some pains to point out the value of repose in neuralgias, in myelitis, and in the early stages of locomotor ataxia. I shall now confine myself chiefly to its use in the various forms of weakness which exist with thin blood and wasting, with or without distinct lesions of the stomach or womb.

Whether we shall ask a patient to walk or to take rest is a question which turns up for answer almost every day in practice. Most often we incline to insist on exercise, and are led to do so from a belief that women walk too little, and that to move about a good deal every day is good for everybody. I think we are as often wrong as right. A good brisk daily walk is for well folks a tonic, breaks down old

tissues, and creates a wholesome demand for food. The same is true for some sick people. The habit of horse exercise or a long walk every day is needed to cure or to aid in the cure of disordered stomach and costive bowels, but if all exertion gives rise only to increase of trouble, to extreme sense of fatigue, to nausea, what shall we do? And suppose that tonics do not help to make exertion easy, and that the great tonic of change of air fails us, shall we still persist? And here lies the trouble: there are women who mimic fatigue, who indulge themselves in rest on the least pretence, who have no symptoms so truly honest that we need care to regard them. These are they who spoil their own nervous systems as they spoil their children, when they have them, by yielding to the least desire and teaching them to dwell on little pains. For such people there is no help but to insist on self-control and on daily use of the limbs. They must be told to exert themselves, and made to do so if that can be. If they are young this is easy enough. If they have grown to middle life, and made long habits of self-indulgence, the struggle is always useless. But few, however, among these women are free from some defect of blood or tissue, either original or having come on as a result of years of indolence and attention to

aches and ailments which should never have had given to them more than a passing thought, and which certainly should not have been made an excuse for the sofa or the bed.

Sometimes the question is easy to settle. If you find a woman who is in good state as to color and flesh, and who is always able to do what it pleases her to do, and who is tired by what does not please her, that is a woman to order out of bed and to control with a firm and steady will. That is a woman who is to be made to walk, with no regard to her aches, and to be made to persist until exertion ceases to give rise to the mimicry of fatigue. In such cases the man who can insure belief in his opinions and obedience to his decrees secures very often most brilliant and sometimes easy success; and it is in such cases that women who are in all other ways capable doctors fail, because they do not obtain the needed control over those of their own sex. There are still other cases in which the same mischievous tendencies to repose, to endless tire, to hysterical symptoms, and to emotional displays have grown out of defects of nutrition so distinct that no man ought to think for them of mere exertion as a sole means of cure. The time comes for that, but it should not come until entire rest has been used, with

other means, to fit them for making use of their muscles. Nothing upsets these cases like over-exertion, and the attempt to make them walk usually ends in some mischievous emotional display, and in creating a new reason for thinking that they cannot walk. As to the two sets of cases just sketched, no one need hesitate; the one must walk, the other should not until we have bettered her nutritive state. She may be able to drag herself about, but no good will be done by making her do so. But between these two classes lies the larger number of such cases, giving us every kind of real and imagined symptom, and dreadfully well fitted to puzzle the most competent physician. As a rule, no harm is done by rest, even in such people as give us doubts about whether it is or is not well for them to exert themselves. There are plenty of these women who are just well enough to make it likely that if they had motive enough for exertion to cause them to forget themselves they would find it useful. In the doubt I am rather given to insisting on rest, but the rest I like for them is not at all their notion of rest. To lie abed half the day, and sew a little and read a little, and be interesting and excite sympathy, is all very well, but when they are bidden to stay in bed a month, and neither to read, write, nor



sew, and to have one nurse,—who is not a relative, —then rest becomes for some women a rather bitter medicine, and they are glad enough to accept the order to rise and go about when the doctor issues a mandate which has become pleasantly welcome and eagerly looked for. I do not think it easy to make a mistake in this matter unless the woman takes with morbid delight to the system of enforced rest, and unless the doctor is a person of feeble will. I have never met myself with any serious trouble about getting out of bed any woman for whom I thought rest needful, but it has happened to others, and the man who resolves to send any nervous woman to bed must be quite sure that she will obey him when the time comes for her to get up.

I have, of course, made use of every grade of rest for my patients, from insisting upon repose on a lounge for some hours a day up to entire rest in bed. In carrying out my general plan of treatment it is my habit to ask the patient to remain in bed from six weeks to two months. At first, and in some cases for four or five weeks, I do not permit the patient to sit up or to sew or write or read. The only action allowed is that needed to clean the teeth. In some instances I have not permitted the patient to turn over without aid, and this I have done because some-

times I think no motion desirable, and because sometimes the moral influence of absolute repose is of use. In such cases I arrange to have the bowels and water passed while lying down, and the patient is lifted on to a lounge at bedtime and sponged, and then lifted back again into the newly-made bed. In all cases of weakness, treated by rest, I insist on the patient being fed by the nurse, and, when well enough to sit up in bed, I insist that the meats shall be cut up, so as to make it easier for the patient to feed herself.

In many cases I allow the patient to sit up in order to obey the calls of nature, but I am always careful to have the bowels kept reasonably free from costiveness, knowing well how such a state and the efforts it gives rise to enfeeble a sick person.

Usually, after a fortnight I permit the patient to be read to,—one to three hours a day,—but I am daily amazed to see how kindly nervous and anæmic women take to this absolute rest, and how little they complain of its monotony. In fact, the use of massage and the battery, with the frequent comings of the nurse with food and the doctor's visits, seem so to fill up the day as to make the treatment less tiresome than might be supposed. And, besides this, the sense of comfort which is apt to come about the fifth or sixth day,—the feeling of ease, and the ready

capacity to digest food, and the growing hope of final cure, fed as it is by present relief,—all conspire to make most patients contented and tractable.

The moral uses of enforced rest are readily estimated. From a restless life of irregular hours, and probably endless drugging, from hurtful sympathy and over-zealous care, the patient passes to an atmosphere of quiet, to order and control, to the system and care of a thorough nurse, to an absence of drugs, and to simple diet. The result is always at first, whatever it may be afterwards, a sense of relief, and a remarkable and often a quite abrupt disappearance of many of the nervous symptoms with which we are all of us only too sadly familiar.

All the moral uses of rest and isolation and change of habits are not obtained by merely insisting on the physical conditions needed to effect these ends. If the physician has the force of character required to secure the confidence and respect of his patients he has also much more in his power, and should have the tact to seize the proper occasions to direct the thoughts of his patients to the lapse from duties to others, and to the selfishness which a life of invalidism is apt to bring about. Such moral medication belongs to the higher sphere of the doctor's duties, and if he means to cure his patient permanently, he

cannot afford to neglect them. Above all, let him be careful that the masseuse and the nurse do not talk of the patient's ills, and let him by degrees teach the sick person how very essential it is to speak of her aches and pains to no one but himself.

I have often asked myself why rest is of value in the cases of which I am now speaking, and I have already alluded briefly to some of the modes in which it is of use.

Let us take first the simpler cases. We meet now and then with feeble people who are dyspeptic, and who find that exercise after a meal, or indeed much exercise on any day, is sure to cause loss of power or lessened power to digest food. The same thing is seen in an extreme degree in the well-known experiment of causing a dog to run violently after eating, in which case digestion is entirely suspended. Whether these results be due to the calling off of blood from the gastric organs to the muscles, or whether the nervous system is, for some reason, unable to evolve at the same time the force needed for a double purpose, is not quite clear, but the fact is undoubted, and finds added illustrations in many of the class of exhausted women. It is plain that this trouble exists in some of them. It is likely that it is present in a larger number. The use of rest in

these people admits of no question. If we are to give them the means in blood and flesh of carrying on the work of life, it must be done with the aid of the stomach, and we must humor that organ until it is able to act in a more healthy manner under ordinary conditions.

The muscular system in many of such patients—I mean in ever-weary, thin, and thin-blooded persons—is doing its work with constant difficulty. As a result, fatigue comes early, is extreme, and lasts long. The demand for nutritive aid is ahead of the supply, and before the tissues are rebuilt a new demand is made, so that the materials of disintegration accumulate, and do this the more easily because the eliminative organs share in the general defects. And these are some of the reasons why anæmic people are always tired; but, besides this, all real sensations are magnified by women whose nervous systems have become sensitive owing to a life of attention to their ailments, and so at last it becomes hard to separate the true from the false, and we are thus led to be too skeptical as to the presence of real causes of annoyance. Certain it is that rest, under proper conditions, is found by such sufferers to be a great relief; but rest alone will not answer, and it is needful, as I shall show, to bring to our help certain other

means, in order to secure all the good which repose may be made to insure.

In dealing with this, as with every other medical means, it is well to recall that in our attempts to help we may sometimes do harm, and we must make sure that in causing the largest share of good we do the least possible evil.

“The one goes with the other, as shadow with light, and to no therapeutic measure does this apply more surely than to the use of rest.

“Let us take the simplest case,—that which arises daily in the treatment of joint-troubles or broken bones. We put the limb in splints, and thus, for a time, check its power to move. The bone knits, or the joint gets well; but the muscles waste, the skin dries, the nails may for a time cease to grow, nutrition is brought down, as an arithmetician would say, to its lowest terms, and when the bone or joint is well we have a limb which is in a state of disease. As concerns broken bones, the evil may be slight and easy of relief, if the surgeon will but remember that when joints are put at rest too long they soon fall a prey to a form of arthritis, which is the more apt to be severe the older the patient is, and may be easily avoided by frequent motion of the joints, which, to be healthful, exact a certain share of daily movement. If, indeed, with perfect stillness of the fragments we could have the full life of a limb in action,

I suspect that the cure of the break might be far more rapid.

“What is true of the part is true of the whole. When we put the entire body at rest we create certain evils while doing some share of good, and it is therefore our part to use such means as shall, in every case, lessen and limit the ills we cannot wholly avoid. How to reach these ends I shall by and by state, but for a brief space I should like to dwell on some of the bad results which come of our efforts to reach through rest in bed all the good which it can give us, and to these points I ask the most thoughtful attention, because upon the care with which we meet and provide for them depends the value which we will get out of this most potent means of treatment.

“When we put patients in bed and forbid them to rise or to make use of their muscles, we at once lessen appetite, weaken digestion in many cases, constipate the bowels, and enfeeble circulation.”<sup>1</sup>

When we put the muscles at absolute rest we create certain difficulties, because the normal acts of repeated movement insure a certain rate of nutrition which brings blood to the active parts, and without which the currents flow more largely around than through the muscles. The lessened blood-supply is

---

<sup>1</sup> Lecture, *op. cit.*

a result of diminished functional movement, and we need to create a constant demand in the inactive parts. But, besides this, every active muscle is practically a throbbing heart, squeezing its vessels empty while in motion, and relaxing, so as to allow them to fill up anew. Thus, both for itself and in its relations to the rest of the body, its activity is functionally of service. Then, also, the vessels, unaided by changes of posture and by motion, lose tone, and the distant local circuits, for all of these reasons, cease to receive their normal supply, so that defects of nutrition occur, and, with these, defects of temperature.

“I was struck with the extent to which these evils may go, in the case of Mrs. P., æt. 52, who was brought to the Infirmary from New Jersey, having been prone in bed fifteen years. I soon knew that she was free of disease, and had stayed in bed at first because there was some lack of power and much pain on rising, and at last because she had the firm belief that she could not walk. After a week's massage I made her get up. I had won her full trust, and she obeyed, or tried to obey me, like a child. But she would faint and grow deadly pale, even if seated a short time. The heart-beats rose from sixty to one hundred and thirty, and grew feeble; the breath came fast, and she had to lie down at once. Her skin was dry, sallow, and bloodless,



her muscles flabby; and when, at last, after a fortnight more, I set her on her feet again, she had to endure for a time the most dreadful vertigo and alarming palpitations of the heart, while her feet, in a few minutes of feeble walking, would swell so as to present the most strange appearance. By and by all this went away, and in a month she could walk, sit up, sew, read, and, in a word, live like others. She went home a well-cured woman.

“Let us think, then, when we put a person in bed, that we are lessening the heart-beats some twenty a minute, nearly a third; that we are making the tardy blood to linger in the by-ways of the blood-round, for it has its by-ways; that rest prone binds the bowels, and tends to destroy the desire to eat; and that muscles in rest too long get to be unhealthy and shrunken in substance. Bear these ills in mind, and be ready to meet them, and we shall have answered the hard question of how to help by rest without hurt to the patient.”<sup>1</sup>

When I first made use of this treatment I allowed my patients to get up too suddenly, and in some cases I thus brought on relapses and a return of the

---

<sup>1</sup> Lecture, op. cit. In the July number (1876) of the *Chicago Journal of Mental and Nervous Disease* is an able review of my lecture, in which are some criticisms which I accept as correct, and which I have used to improve my statements of the causes of some of the evils of rest.

feeling of painful fatigue. I also saw in some of these cases what I still see at times,—a rapid loss of flesh.

I now begin by permitting the patient to sit up in bed, then to feed herself, and next to sit up out of bed a few minutes at bedtime. In a week, she is desired to sit up fifteen minutes twice a day, and this is gradually increased until, at the end of twelve weeks, she rests on the bed only three to five hours daily. Even after she moves about and goes out, I insist for two months on absolute repose at least two or three hours daily.