

SPRAINS; THEIR CONSEQUENCES AND TREATMENT

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649050260

Sprains; Their Consequences and Treatment by C. W. Mansell Moullin

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C. W. MANSELL MOULLIN

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REPRINTED FROM WOOD'S MEDICAL AND SURGICAL MONOGRAPHS.

NEW YORK
WILLIAM WOOD & COMPANY

1891

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SPRAINS

AND THEIR CONSEQUENCES.

INTRODUCTION.

It has been my endeavor in the following pages to confine myself as closely as possible to the commoner forms of sprains, and to those after consequences which may be regarded as directly and immediately dependent on them. Of those which follow more remotely there is no end, and the briefest description would lead me far beyond the limits at my disposal. It has been said, and not untruly, that in all probability half the crippled limbs and stiffened joints that are met with every day, date their starting point from the occurrence of some apparently trivial accident of this description.

The question of treatment has been dealt with at some length; and if I have seemed to advocate the adoption of more active measures than those generally employed, especially in the case of long standing inability, it is only that I am firmly convinced of their efficacy and safety when properly carried out.

Few injuries are treated with so little consideration as sprains. It is impossible to overlook wounds, owing to the bleeding and pain that accompany them. Fractures, it is understood, require rest and care; but sprains, in which the tissues are torn to such a degree that the damage is far more serious than in many fractures, merely because they are so common, are considered of little or no consequence.

It counts for nothing that the part injured is one of the most complicated structures in the body, and particularly liable to inflammation from the constant use to which it is subjected. The construction of a bone is comparatively simple, and its function is merely the passive duty of support. A

joint, on the other hand, is exceedingly complex, and must ~~not~~ ^{not only} be as strong for support as the bones between which it lies, but, must, in addition, be capable of executing rapid and often extensive movements. Two, three, or even more bones may enter into its construction; each of them where it forms part of the joint is faced with cartilage; around them is a protecting capsule of fibrous tissue, lined with a delicate secreting membrane; ligaments of different kinds hold the bones together; muscles of various size and strength move them one on the other; there is a very large supply of blood-vessels and nerves; and even the tissues round are so adjusted to the surfaces that with every change in position they fill up the constantly-varying spaces round and between the bones. Yet a fracture is regarded as very serious; a sprained joint as quite a trivial matter.

In the one the injury is simple and definite in its character; one broken bone does not differ very materially in this respect from another; in the other there is no limit to the variety of hurt sustained, or to the complications that follow. The ligaments may be torn across, or wrenched off the bone; the muscles may be lacerated; the tendons displaced bodily from their grooves; the discs of cartilage which are present in some joints between the bones, forced out from their position; the joint cavity filled with blood, and so much more extravasated into the tissues that the discoloration may reach from the ankle to the knee; in short, the tissues may be torn and bruised as extensively as in a dislocation. In many cases the injury is to all intents and purposes the same; the sole difference is that the bones which were wrenched apart at the time of the accident resume their normal relation to each other in the one, while in the other they either remain fixed, or slip a little further aside. Vidal de Cassis appreciated this when he spoke of sprains as temporary dislocations.

There is no end to the variety of the injuries that are classed together under this name. It is almost an impossibility for two sprains to be exactly alike. Joints differ from each other as widely as they can, both in structure and action; different kinds of tissue enter into their formation, and serve as many separate purposes; the violence that causes the accident is different in every case, both in its force and direction; and the position of the limb at the moment can rarely be the

same. Some joints are much more liable to injury than others, those especially in the lower limb; and the ankle more than the hip or knee. In some the stress falls on the ligaments; in others, as in the shoulder, on the muscles; very often both suffer together, though in varying proportion; or without the joint itself being injured, the muscles and tendons may be strained, and give rise to stiffness or weakness that lasts for years.

Other considerations also step in and help to make the variety greater. No two persons ever resemble each other exactly; even if this were possible in the earliest years of life, age, habits, occupation, mental temperament, bodily constitution, and many other things, induce such modifications that the slightest difference must at length become immense. Repair is not carried on with the same degree of energy in all; in some complications occur much more easily than they do in others; inflammation breaks out more readily, or other troubles make their appearance; so that, even if by some strange chance the injuries were identically the same in any two cases, it is impossible for them to continue so for any length of time. In this respect peculiarities of constitution are of great significance; in the majority of instances the ultimate result, whether the joint recovers within a reasonable period, or remains cold, stiff, and untrustworthy for years, depends much more on them, and on the method of treatment adopted, than on the mere fact of a ligament having been torn or only stretched.

This, however, is not the only reason why sprains do not merit the neglect with which they are so often treated. Imperfect recovery in the case of a broken bone is quite exceptional. Failure of union does sometimes, but very rarely, occur. It is more common for the position of the broken ends to be faulty, so that there is some deformity, or loss of power; but even when this does happen the after-trouble or inconvenience is only of a temporary character, and at the end of a few weeks or months, at the most, the limb is as strong and firm as ever. Such a thing as yielding, weakness, or continued pain at the seat of fracture is almost unknown, unless there is some exceptional condition of things present. It is not so with sprains. An amount of the thickening round the seat of injury, so slight as altogether to escape notice in the case of a fracture, is quite enough to disable a joint.

It is true that a large number of sprained joints get well of themselves, or under ordinary domestic treatment, a few, it must be admitted, in spite of it; but even in the young and healthy, it is not unusual to find the action of the joint seriously impaired. There may be merely a general sense of weakness and insecurity, a feeling that it is not to be trusted as it was before; or the least attempt at movement may be attended with intolerable suffering. There may be no very visible or definite alteration, or every tissue of which the joint is composed may be more or less disorganized. The skin may be exquisitely tender; the subcutaneous tissues swollen and distended, so that the natural outline cannot even be recognized; the muscles may waste away; the tendons become glued to their sheaths, and the interior of the joint be damaged to such an extent that, even if everything else were restored, it would be impossible for the bone to work evenly or smoothly on the other.

Results of this kind, happily, may nearly always be prevented. It is true that in some people the power of repair is much more feeble than it is in others; and, no doubt, under some conditions, such as advancing age, joints are especially prone to stiffness and other troubles; but taking them as a whole, few kinds of accidents are more amenable to treatment than sprains, if only two conditions are observed: one, that it is commenced sufficiently early; the other, that it is carried out thoroughly and efficiently, not in a perfunctory manner.

Afterwards, if the time immediately after the accident has been allowed to pass by, and the joint is stiff, and recovery imperfect, a great deal may still be done; but as a rule, the longer the delay the more remote the prospect of perfect restoration. The sudden and startling cures that are so often heard of are really few and far between. It must always be remembered that in surgery, as in most other things, successes are trumpeted abroad, and always quoted as an encouragement, while failures are either never heard of, or quite unconsciously are forgotten. Much more often recovery is slow and tedious, requiring care and much patience, with days in which improvement is well marked, interspersed among a much larger number on which either no change at all is apparent, or possibly even the pain and stiffness seem actually worse.