

Hunter by a *diminution of the muscular powers of the arteries*, at the same time that the vessel is dilated, and the whole he attributes to a necessary operation of nature. Mr. Hunter has here fallen into much the same error as his predecessors; every one knows, because every one can see (as I before observed) in any case of Inflammation, that the extreme vessels must be dilated, there being a passage afforded to new particles of blood, which previously was not the case. But this is not the question: the point of consideration is to connect the remote and proximate causes in one chain; one must follow the other; one must explain the other, and if not, no rational, reasonable, investigating mind, will be satisfied with a theory, let it be ever so plausible, or emanate from any man, however justly celebrated. Now we all know that one remote cause of Inflammation is *stimuli*; we likewise know that the immediate effect of stimuli on the human body is contraction of the muscular fibre; contraction and enlargement are certainly not the same. How, then, can Mr Hunter be correct? It is impossible.

The last theory which I shall notice in this paper is the general opinion of the day; which is, that an *increased action of the vessels* is the proximate cause of the disease of which we are treating. If I understand *increased action* in the human system aright, and if this be any other than a variation of the old theories, then must be with increased action, increased muscularity; in other words, increased action in an inflamed part, must partake of increased muscular action. Now, muscular action produces contraction, and if contraction of the vessels affected in Inflammation, be brought to a *continued* state of contraction by this increased action, how is it possible that that state of distention can ever take place by which the old particles of blood are allowed to enter? It is impossible.

I do not consider it necessary to enter into a more lengthened refutation of the doctrines we have passed under consideration. It will occur to every considerate mind that there is something wanting; some connecting link to explain cause and effect, which neither *obstruction, congestion, distension*, nor *increased action* will supply; and until this be furnished, we shall still be at a loss in giving any rational explanation of the proximate causes of Inflammation. To afford this is the object I have in view in publishing this paper, and I will now proceed to attempt it: it is for the profession to judge whether satisfactorily or not.

I premise that Inflammation invariably originates in the capillary vessels.

That these capillaries, which naturally *do not* convey red-blood, are the branches given off from trunks which *do* convey it.

That every vessel carrying red blood has numerous capillaries branching from it, of which the red blood-vessel may be called the trunk.

That in every case of Inflammation, more or less in number of these capillaries are constrained to convey red-particles, which naturally they will not do.

That the action of the heart, of the arteries, and of the capillaries, combine to keep the whole volume of blood in a progressive state