

# Indhold

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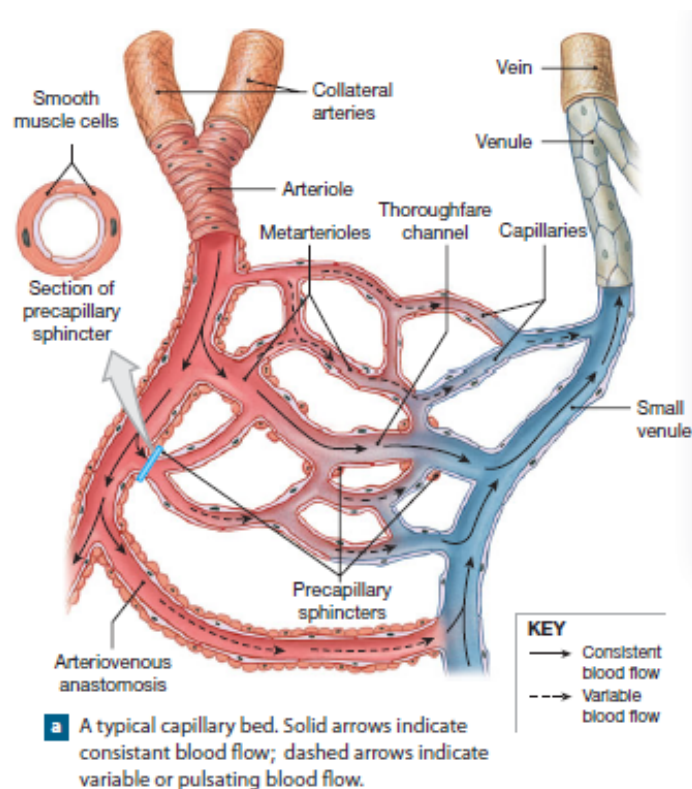
# Del I

## Background

## 0.1 Microcirculatory system

In this section the hand will be used as an example point, to describe the microcirculatory system.

Structure of capillaries: The capillaries are not of single individual fluid conductors like veins and arteries but instead formed into something called capillary beds. Here they work as a interconnected network of vessels. As mentioned before the arterioles divide into dozen of capillaries which then merge into a venule, after the blood has been de-oxygenated. The capillary is divided into two segments, first the metarteriole and second the capillary. The blood flow between arterioles and venules is can also be a direct connection made by an arteriovenous anastomosis. This works as a bypass diverting blood flow around the capillary bed. An example of the structure of the capillary bed can be seen on figur 1.[martini2012]



Figur 1: something

Each capillary entrance is controlled by a precapillary sphincter, which is composed of smooth muscle cells, that are able to contract or relax and thereby limit access of blood flow to certain capillaries.[martini2012]

### **0.1.1 Vasmotion**

The flow within the capillaries varies. This is due to the earlier mentioned precapillary sphincters contracts and relaxes

