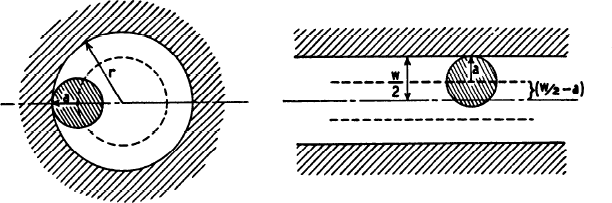
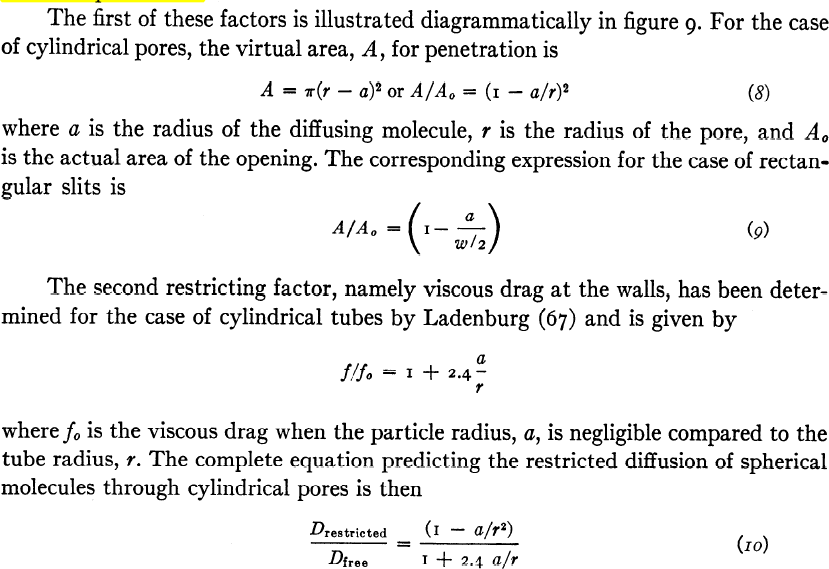
# Sieving & filtration

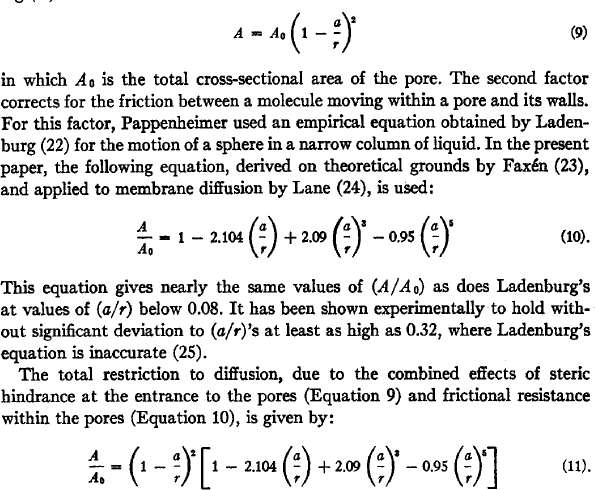
Transport of substances across the fenestra depends on the radius/size of the substances. The process cannot be described with simple diffusion, but more complex pore theory for the transport is necessary.

### Pore Theory

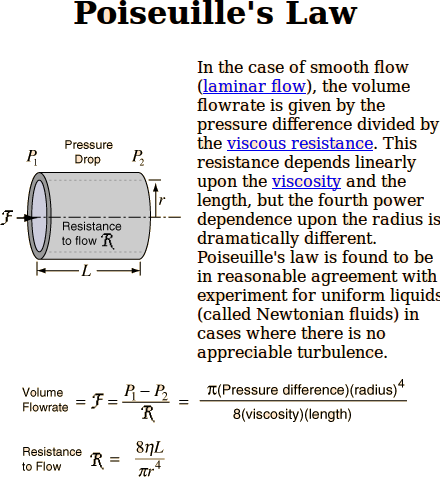
In its simplest form, the pore theory supposes that the capillary walls are pierced with numerous ultramicroscopic openings which are in general too small to allow the passage of plasma protein molecules, but are of sufficient size and number to account for the observed rates of passage of water and nonprotein constituents of the plasma {Pappenheimer1951}.

**Calculation**

{Pappenheimer1951}



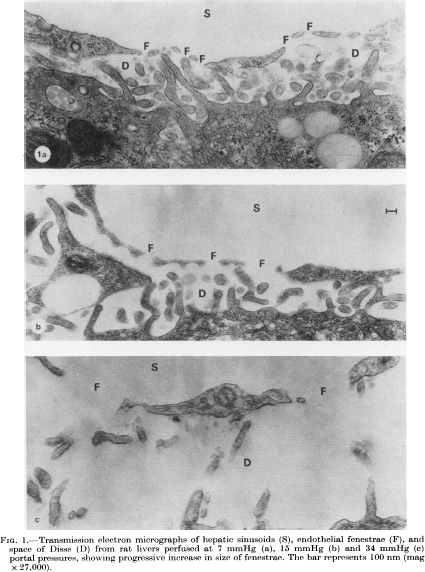
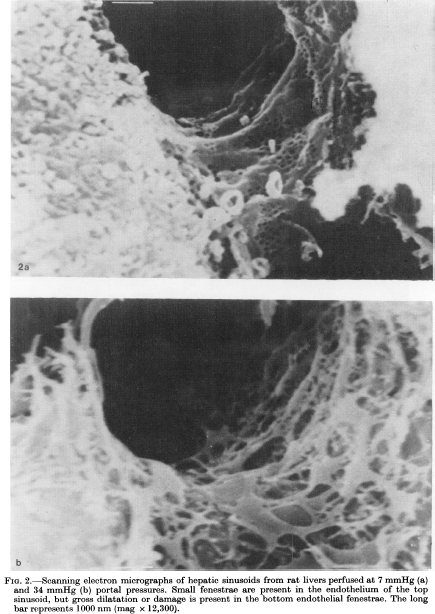
{Renkin1954}



{http://hyperphysics.phy-astr.gsu.edu/hbase/ppois.html}

### Damage of Sieve

High perfusion pressure damages the sieve {Fraser1980}.



{Fraser1980}

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