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**The effect of solutions of certain salts and colloids on the permeability of the capillary walls.**

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In order to study the permeability of the capillary walls for various substances, the material was injected, in isotonic solution, intravenously into rabbits, the diffusion out of the circulation being estimated by the relative concentration of the blood as indicated by the hemoglobin. The rate of injection was such that a volume of fluid equal to the estimated blood volume was introduced in two minutes.

When the chloride, bromide, sulfocyanate, nitrate or acetate of sodium was used, the blood volume returned to normal in thirty minutes. When the tartrate, citrate or sulfate was used the blood volume remained somewhat higher than normal throughout the experiment which usually lasted more than two hours.

The injection of M/15 hydrochloric acid, calcium chloride or colloidal silver (Solargentum, Squibb) produced no delay in the removal of fluid from the circulation. Acacia, however, markedly sustained the increased blood volume at a point one third above the normal for more than two hours.

Under the conditions of these experiments, there was no evidence of edema or of increased water content of the muscles even after repeated injections. The excess of fluid was eliminated through the gastro-intestinal tract, the kidneys and to a slight extent, into the serous cavities.