

the animals that had succumbed, with special attention to the gross appearance of the adrenals, which were found to be enlarged and hemorrhagic.

This study corroborates the generally accepted observation that the antitoxin molecule is bound to the protein (globulin) constituents of the immune serum. The study throws light also on conditions one frequently meets in children exposed to diphtheria, who after receiving diphtheria antitoxin for passive immunization, contract this disease some weeks later and are then given antitoxin intramuscularly. A severe local inflammatory response usually follows. The results of our experiments indicate that the children, when highly sensitized to the horse serum, do not derive any curative benefit from the antitoxin since this reagent undoubtedly remains fixed at the point of injection.

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**Studies on Sensitization. VI. Specific Desensitization of Rabbits
Sensitized to Protein Mixtures.**

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It is generally believed that while it is possible to desensitize rabbits injected with a purified protein such as crystalline egg albumin, it is not possible to desensitize these animals when injected with a complex mixture of proteins such as serum or egg white. On reinvestigating this problem, it was found that rabbits can be readily desensitized to serum and egg white, the desensitization, however, being of short duration. In the early experiments, large quantities, such as 10 or 20 cc. of these proteins were injected intravenously to produce desensitization. Later experiments indicated that relatively small amounts, such as 1 cc. or 0.5 cc. per kg. of body weight of rabbits, were sufficient to desensitize.

Table I illustrates desensitization in 2 rabbits, sensitized to human serum that had previously been heated for 30 min. at 56°C. Rabbit 173 had a skin sensitivity titer of 1,000, but no serum precipitins. By injecting intravenously 0.5 cc. of human serum per kg. of body weight, the skin sensitivity tests given 1 hour and 6 hours later, were practically negative, the skin response being limited to the injections of undiluted serum—a response commonly given by

TABLE I.
Desensitization of Rabbits by Intravenous Injections of Human Serum.

	Skin s'tivity	Serum p'pitin	Serum p'pitinogen
Rabbit 173 injected 0.5 cc. per kg; total 1.44 cc.			
Before injection	1,000	—	—
1 hr. after injection	und.*	und.*	100
6 " " "	und.	und.	100
24 " " "		10	10
48 " " "	100	10	10
120 " " "	1,000	10,000	und.*
Rabbit 213 injected 0.5 cc. per kg.; total 1.41 cc.			
Before injection	1,000	10,000	—
1 hr. after injection	—	—	100
6 " " "	und.	—	100
24 " " "		100	100
48 " " "	100	1,000	10
120 " " "	1,000	10,000	und.

* Reactions obtained with undiluted serum only.

normal rabbits. Forty-eight hours after the desensitizing injection, the skin response was 100; in 120 hours, it reached the original level. Of interest is the fact that the precipitin titer which was negative at the time of the desensitizing injection, reached 10,000 120 hours after this injection.

Rabbit 213 which showed a skin sensitivity titer of 1,000 and a serum precipitin titer of 10,000, was completely desensitized after an intravenous administration of 0.5 cc. human serum per kg. of body weight. One noted a return to the sensitized state 48 hours after the desensitizing injection.

It is evident also that the precipitinogen content of the serum is at its height during the desensitized state, disappearing as the titers of skin sensitivity and serum precipitins reach a high level.

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Dizziness, Fainting and Convulsions Due to Hyperactivity of the Carotid Sinus Reflex.

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A study has been made of the circulatory and the nervous systems of 12 subjects who complained of dizziness and fainting and in whom pressures of graded intensity on the right or left carot-