

palmar surface of one finger was pressed against the surface of a sterile agar plate and smeared with a bent glass spreader. After holding the finger of the other hand free and allowing it to dry for 15 minutes, the same procedure was followed. The first culture was taken as the initial contact dose. Healthy subjects must be used for these experiments. If female subjects are used, care must be taken to avoid certain periods during the menstrual cycle, inasmuch as the disinfecting power of the skin can vary 10 to 15% at times. The skin of diabetic patients has approximately half of the disinfecting power of normal skin.

Care must be exercised in testing the physiological variations in self-disinfecting power of the skin to avoid placing a layer of foreign material over the cornified epithelium and prevent contact of bacteria with this layer. The results reported here substantiate earlier publications from this laboratory.

5322

Optimum Bacterial Suspension for Testing Skin Disinfection.

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Singer and Arnold¹ and Arnold, Gustafson, Hull, Montgomery and Singer² used 1:200 dilutions of broth cultures of bacteria in saline for testing the self-disinfecting power of the skin. We have found that this is not the optimum concentration to be used for this purpose. The 1:200 suspension is too dilute to test this function. We have found that it is necessary to increase the concentration of bacteria in the suspension and to extend the period of the test over 60 minutes instead of 30 minutes. The 1:200 suspension is so dilute that there can be a considerable variation in the relative self-disinfecting power and still show a 100% destruction of the test bacteria. The accompanying table gives the results of 250 experiments, 50 experiments for each dilution are averaged. The variations for each dilution are on the average of less than 5%. The technic was the same as that used by Arnold, *et al.*²

¹ Singer, C., and Arnold, L., *PROC. SOC. EXP. BIOL. AND MED.*, 1930, **27**, 364.

² Arnold, L., Gustafson, C., Montgomery, B. E., Hull, T. G., and Singer, C., *Am. J. Hyg.*, 1930, **11**, 345.

TABLE I.
Percent Destruction of Viable B. prodigiosus from Palmar Surface of Hand.

24-hour Broth Culture Diluted with Saline	After				
	Immediate	15 min.	30 min.	45 min.	60 min.
1:10	0	40	60	65	70
1:50	0	60	75	86	91
1:100	0	68	86	98	99
1:200	0	74	98	99	100
1:500	0	90	99	100	100

We have found that the 1:50 dilution is the best for testing the self-disinfecting power of the skin and the time extended over one hour. The reserve self-disinfecting power can be determined if this concentration is used. Palmar and dorsal surfaces of the hand show constant differences, the female's skin varies during certain periods of the menstrual cycle, pathological skin shows considerable variations by this method. These results will be reported in full in the near future.

5323

Effect of Bilateral Suprarenalectomy on Certain Constituents of the Blood of Dogs.

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A study of the changes in the blood of dogs following bilateral suprarenalectomy has been made to attempt to determine what important constituents undergo pathological changes in their concentration. Data have been previously available suggesting pathological changes, but many of the results have been conflicting and no day by day analyses have been made. Accordingly, analyses have been made before operation, after removal of one suprarenal gland, and daily observations after removal of the second gland until death occurred, from 4 to 14 days later. The constituents which have been studied on 15 dogs are: the pH and the CO₂ content of the blood serum, in order to determine whether or not there was a pathological change in the acid-base balance; sugar and lactic acid concentration of the blood serum, in order to determine whether a