the guinea pigs continued to get air in and out of the lungs during the whole experiment and did not die because of bronchospasm.

Carotid pressure rose in varying degrees after the onset of bronchospasm.

Conclusions. 1. The circulatory effects as a result of bronchospasm were studied, particularly with reference to the effective venous pressure. 2. When bronchospasm is extreme there is a marked increase in the effective venous pressure. 3. When bronchospasm is not extreme there is very little change in the effective venous pressure.

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Extraction of Ovarian Hormone From Urine.

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Since the discovery of the presence of the ovarian hormone in the blood (Loewe,[1] Frank[2]) and in urine (Loewe[3]), Ascheim and Zondek[4] have shown that the urines of pregnant women contain large quantities of the hormone. This finding, which has been confirmed by Laqueur,[5] Slotta[6] and others, is of exceptional value in that it provides an excellent source of the hormone from the standpoint of expense as well as availability.

Recently Zondek[7] has published a preliminary note in which he states that the common organic solvents may be used to extract the hormone. We have used several organic solvents in addition to those commonly used but have found none so satisfactory as ethyl ether. In Table I are the data obtained by 4 successive extractions of the urine with ¼ its volume of ethyl ether. The combined ethereal extracts were washed with dilute alkali and dilute acid and then distilled to dryness. The residue was taken up in hot alcohol, cooled, filtered, and the potency determined. The data of Table I

[1] Loewe, S., *Klin. Wochenschr.*, 1925, iv, 1407.

[2] Frank, R. T., and Goldberger, M. A., *J. Am. Med. Assn.*, 1926, lxxxvi, 1686.

[3] Loewe, S., and Lange, F., *Klin. Wochenschr.*, 1926, v, 1038.

[4] Aschheim, S., and Zondek, B., *Klin. Wochenschr.*, 1927, vi, 1322.

[5] Laqueur, E., Dingemanse, E., Hart, P. C., and deJongh, S. E., *Klin. Wochenschr.*, 1927, vi, 1859.

[6] Slotta, K. H., *Deut. Med. Wochenschr.*, 1927, liii, 2158.

[7] Zondek, B., *Klin. Wochenschr.*, 1928, vii, 485.

indicate that this very simple procedure gives a product of considerable activity.

TABLE I.
Ovarian Hormone of Urines Obtained Just Prior to Delivery.

Rat units per liter	480	500	630	710	625	830	1000	470	1240
Wt. of 1 R. U. in mg.	—	0.06	0.06	0.12	—	0.06	0.14	0.22	0.06

Owing to the danger of oxidation of the hormone by the peroxides of ethyl ether, we have made use of an alternative method which has the additional advantage of being less time-consuming. The principle involved is the familiar continuous liquid extraction of a solution but the procedure is so modified that the liquid being extracted siphons into the apparatus at the top and the spent liquid is removed at the lower end by the pressure of the column of urine and chloroform. By properly regulating the speed of ingress of the urine and the rate of boiling of the chloroform, several gallons may be run through the apparatus with practically no attention but with almost complete recovery of the hormone from the urine. The chloroform extract is washed with dilute alkali and acid and distilled. The residue which is taken up in alcohol furnishes the stock from which aqueous solutions are prepared which are considerably more refined than the alcoholic solutions.

The aqueous solutions may be purified still further by the use of organic solvents. Properly prepared extracts exhibit an activity only slightly less than that of preparations from the liquor folliculi (1000 R. U. or more per 1 mg.). This, coupled with the behavior during the course of preparation and the resemblance in physiological response, leads us to the belief that the substance extracted from the urine may be chemically identical with the ovarian hormone.

In Table II, we present data upon the activity of extracts prepared from single samples of post-partum urines collected by the nurses of a maternity ward. While our data are far from complete, they seem to indicate rather clearly that the kidney ceases to eliminate the hormone soon after delivery. This would lead one to suspect that the concentration in the blood has diminished and that the organ responsible for the production of the hormone has ceased to function in that respect.

TABLE II.
Ovarian Hormone in Post-Partum Urines.

Hours Post-Partum	8½	37	48	72	96	144	192	264
Rat Units per liter	640	500	80	22	20	<5	<5	<4