

It is interesting to note that while the chromatin of the somatic cell (the one in which the diminution process occurs) is affected by the treatment with the carbon dioxide, the chromosomes of the "Urgeschlechtszelle" are perfectly normal.

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Apnea as an after-effect of pulmonary distension and its dependence upon the vagus nerves. Demonstration.

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In recent years the conception became dominant, due especially to the investigations and teachings of Haldane and his pupils, that apnea as an after-effect of distension of the lung is essentially of chemical origin, due to a reduction of CO_2 in the blood circulating through the respiratory center; this has been designated as apnea vera. It was recently stated that there is no experimental evidence for a possible claim that "true apnea" could depend exclusively upon the intactness of the vagus nerves. At this meeting G. and M. demonstrated the following three facts. (1) A fairly prolonged and complete apnea followed a short distention of the lungs in dogs without any previous artificial respiration; the duration of the apnea depended upon the degree of pressure used for the distension (Meltzer's pleural canula was used for the graphic presentation of respiration). (2) The same apneic after-effect was obtained when the air used for the distension of the lungs contained 5 per cent. CO_2 . (3) No such apneic after-effect could be obtained after both vagus nerves were cut.

These experiments demonstrate that the mere distension of the nerve endings of the pulmonary vagus without the aid of a chemical factor (acapnia) is capable of producing a prolonged apnea as an after-effect of the mechanical stimulus. The restriction of the use of the term "true apnea" for a condition produced exclusively by chemical changes does not seem to be well founded.