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Alimentary behaviour following pinealectomy.

Male Wistar rats fed a complete, balanced diet, housed in single cages, at a constant ambient temperature, at a dark/light cycle of 12/12 hrs (light: 10:22), were pinealectomized or sham-operated according to Kuszak & Rodin (*Experientia*, 1977, **33**, 283-284). Both pinealectomy and sham-operation reduce the differences in food-, total fluid-, water-, sweet- and bitter solution-intake; however, while pinealectomy raises the dark/light intake ratio of salty and sour fluids, sham-operation lowers both significantly.

Circadian taste variations are therefore apparently exerted by the pineal only for salty and sour taste. Salty solution-intake is in every case depressed both by pinealectomy and by sham-operation.

Sweet taste is better preferred by pinealectomized rats only during the dark period, while it is always chosen by sham-operated rats. Bitter taste is practically ever depressed only in sham-operated rats, while sour taste is the only taste that is not at all modified by both pinealectomy and sham-operation. The results point to some influence of the pineal on food intake and on taste preference. Yet some role may possibly be played also by surgical circulatory or nervous disturbance.