

in our visits to institutions for other girls that intellectual and physical recreation is far from being neglected. Why then should not similar or even greater facilities be forthcoming for young women who are devoting themselves to such a worthwhile cause as nursing? It must never be forgotten that girls in training are young and active and, as such, are desirous of living their lives to the fullest possible extent. It is all the more important that they be encouraged to do so because training, of necessity, involves a certain exclusion from ordinary outside activities. Therefore let us develop physical, cultural, and social recreation for student nurses and make them healthier and happier girls.

## The Effects of Heat and Salt Depletion

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Important physiological data on the effect of heat and salt depletion have been obtained by the British team of Ladell, Waterlaw and Hudson (1) from soldiers in desert climates in World War II, and especially on the effects of heat in patients admitted to hospital.

All fit men lost weight during the hot weather in Iraq and the loss was most pronounced in those who had the highest chloride sweat concentration. This loss is ascribed to a minor degree of salt deficiency dehydration. This evidence was based on low urine output in spite of high water intake; low urinary chloride output and raised blood urea. No change occurred in the haemoglobin or in the blood and plasma chlorides.

### TWO TYPES.

As a result of their investigations two distinct types of heat exhaustion are designated I and II. The first type was encountered mainly in the first half of the summer. In this vomiting and cramps were common. The patients were pale, collapsed and sweating profusely. The most constant abnormality was reduction in pulse pressure, so that, on standing, syncope occurred. From the chemical aspect it represents a salt-deficiency dehydration as the plasma and whole-blood chlorides were greatly diminished, the haemoglobin and plasma proteins raised with high blood urea. The extra cellular fluid and plasma volumes were diminished. The urine was scanty, of high specific gravity, and almost free from chloride.

Treatment consisted in replacement of salt and water. In severe cases intravenous saline was given with excellent results. There is, therefore, some evidence that this type of heat exhaustion occurs in persons who habitually secrete sweat containing a higher concentration chloride than the average. When their salt intake is inadequate at high rates of sweating they become salt deficient. It is rational to regard as a potential victim any man who is constantly losing weight and excreting concentrated urine with low or absent chloride and he should be given extra salt.

Cases of the second type (Type II) were encountered among those who had come through the hottest weather apparently unscathed. From a clinical aspect they, too, were characterized by defective sweating and polyuria. Their skin was usually severely affected by prickly heat. Vomiting, cramps, and cardio-vascular

abnormalities were absent. The salt deficiency was not so gross as in the first type and they were not dehydrated.

The over-all clinical picture suggested a breakdown of the defence mechanism of the body against heat.

The incidence of the second type can be reduced, if those who suffer severely from "Prickly heat" can be afforded a rest of a few days in a cooler climate after continuous exposure to extreme heat of the desert.

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### A case of Renal Calculus

A case of renal Calculus both kidneys with Hyeronophrosis in right kidney was admitted for operation. Pyelography showed a large almond shaped shadow at the opening of ureter of the right kidney and three small shadows in the left kidney. No dye entered in the bladder in the third plate. The patient, a female aged 30 years, gave a history of 3 years previously having slight symptoms, no history of any renal colic or any acute illness. The X-ray showed an almond shaped shadow in the 4th lumbar region right side. Because of her fear of anaesthesia she refused operation and left hospital. On 18th November without warning or without any outward symptoms there was sudden haemorrhage. Urine report showed trace of albumen, and R. B. C. and phosphates present. She was re-admitted into Hospital and operated on 19. 12. 47 under Paraldehyde and gas Aether. A central longitudinal abdominal incision was made, the vesica was moved aside without opening the peritoneum (petroperitorcally). Stone was palpated at the junction of of Pelvis and ureter. An incision was made over that area (after Palating) and fixing with the fingers in the pelvis of the right kidney. The stone was removed, pelvis and ureter repaired and the abdomen closed as usual. A drainage tube was inserted in a small opening to the right of the wound. Glucose, Redoxine, Penicillin injections were given for three days. 48 hours after operation there was slight distension and discomfort which passed off after treatment. The right kidney started functioning the 4th day. The drainage tube was removed on the 7th day and sutures on the 10th day. Urine was good. Plenty of fluid was given. The patient complained of slight pain in the left kidney. And that she could feel the stones coming down.

Prostigmine  $\frac{1}{2}$  c.c. B.D. was given and on the 16th day after operation 2 stones were passed. Another X-ray was taken 3 weeks after operation. It was seen that the right kidney was smaller also the last stone was lying well in the bladder. It was decided not to operate on the left kidney.

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