The traditional sport/racing bicycle saddle has a narrow protruding nose and supports the weight of the cyclist by creating a pressure distribution like this.

Two peaks or high points in the pressure distribution are clearly evident under the ischial bones, or "sit bones" of the cyclist. The vertical line projections illustrate the location of these sit bones on the traditional saddle.

When this same cyclist uses a saddle without the narrow protruding nose, the pressure distribution looks like that shown in the lower graph. The vertical lines show the alignment of the pressure peaks of the sit bones as they rest on the traditional saddle, shown above, and the no-nose saddle, shown below.

The white outline illustrates a region of pressure on the nose of the traditional saddle that corresponds to the cyclists' perineum, or groin, which is in front of and between the sit bones as they rest on the saddle. This region of pressure in the groin is clearly absent in the pressure distribution of the no-nose saddle. This can be seen in the overlay in the bottom graph. The no-nose saddle reduces, or eliminates the pressure in the perineal or groin region.