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Managing Single and Multiple Incisions in Direct Anterior Hip Surgery

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KEY LEARNING POINTS

- The direct anterior approach (DAA) generally consists of a single incision leading to the Smith-Petersen internervous interval between the sartorius and tensor fascia lata (TFL), but accessory incisions can facilitate acetabular or femoral preparation for virtually any hip implant system.
- Five types of accessory incisions will be presented and discussed in relation to their specific roles in supplementing the primary DAA incision for specific contingencies.

HISTORY

The DAA to the hip was first described by German surgeon Carl Hueter in his 1881 work, *Der Grundriss der Chirurgie* (Compendium of Surgery). Hueter described an incision that started halfway between the anterior superior iliac spine (ASIS) and the greater trochanter. The incision was carried caudally parallel to the lateral edge of the sartorius muscle, allowing access to the interval between the sartorius and the TFL, which could be developed bluntly.

Even at this early time, Hueter noted the muscle-sparing advantages of the DAA. Dr. Marius N. Smith-Petersen of Massachusetts General Hospital popularized the DAA in the United States in the 1920s and 1930s, and used it throughout his prolific career. Smith-Petersen notably described a proximal extension of the incision, which travelled posteriorly along the iliac spine to gain greater exposure to the outer table of the ilium,