

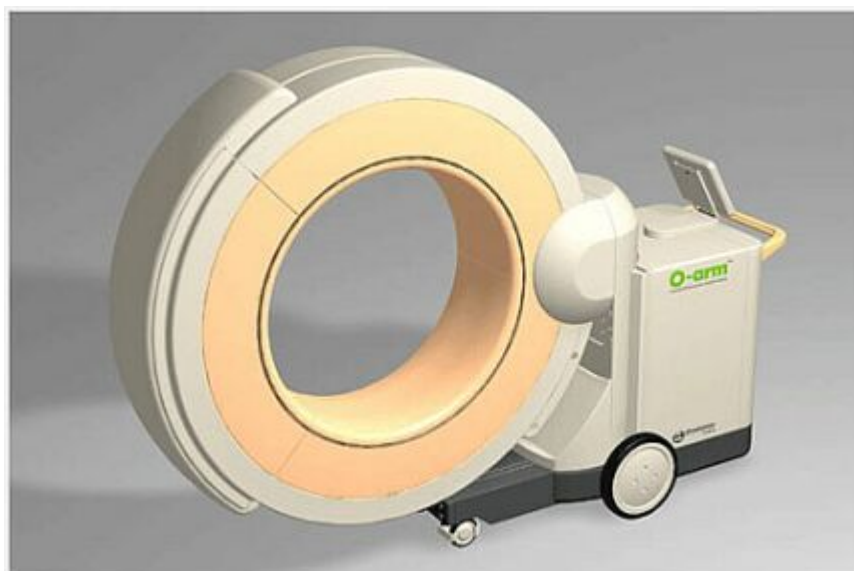
O-arm® Surgical Imaging System

El **O-arm** reemplaza la necesidad de fluoroscopia y genera un conjunto de datos volumétricos en 3 dimensiones que se pueden ver como imágenes transversal, coronal y sagital de la columna, similar a la tomografía computarizada.

El conjunto de datos preoperatorios se pueden descargar en el sistema Stealth (Medtronic) o Brainlab permitiendo la navegación en tiempo real (Patil y col., 2012).

Una desventaja es el costo de la unidad de fluoroscopia O-arm, que cuenta actualmente con aproximadamente \$ 700,000.00 y el sistema Treon StealthStation y un costo aproximado de \$ 250,000.00 (Park y col., 2010).

Permite comprobar el resultado físico de la intervención antes de que el paciente salga del quirófano y durante la intervención, el sistema proporciona imágenes multidimensionales en 2D y volumétricas en 3D, así como imágenes fluoroscópicas.



De esta manera, el cirujano puede ver la anatomía del paciente en la posición operativa, supervisar el estado de la cirugía y verificar los cambios quirúrgicos con una imagen en 3D, lo que permite que el paciente se beneficie de una cirugía menos invasiva, se recupere más rápido, que la operación sea más corta y que se mejore el resultado final.

El dispositivo se mueve fácilmente y con mínimo esfuerzo gracias a su sistema de ruedas motorizadas y presenta un diseño especial. Cuenta con un pórtico que se abre y cierra alrededor del paciente, permite mantener el equipo estéril dentro del campo quirúrgico y es más seguro, ya que una vez cerrado el detector de imagen gira en el interior evitando que haya partes móviles que puedan golpear al paciente o a los profesionales. Además, permite memorizar posiciones de adquisición de imágenes ahorrando tiempo y minimizando la radiación para el paciente.

Se puede utilizar en intervenciones de columna vertebral y en cirugías craneales de patología cerebral y medular. El primero que se instaló en un hospital público español fué en el Hospital La Paz de Madrid.

Aumenta significativamente la precisión quirúrgica y la seguridad de la colocación del tornillo pedicular en la cirugía de fusión lumbar (Castro Castro y col., 2012).

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