Femoral Varus Osteotomy

The hip joint is a ball and socket joint made up of the acetabulum (the socket) which is part of the pelvis and the femoral head (the ball) which is the top part of the thigh bone. The thigh bone is called the femur. Several conditions of the hip can be improved by a surgery to redirect the head of the femur into the acetabulum.

This surgery involves cutting the femur near the top and tilting the ball so that it is pointing into the center of the socket. After the ball has been redirected, it is held in its new position with a plate and screws. The acetabulum or hip socket may require surgery as well. The socket may need to be deepened or redirected to keep the femoral head in better alignment.

Figure A demonstrates the dislocated femoral head and acetabulum Figure B demonstrates the bony realignment of the femur with a plate and screws and the wedge of bone added to the acetabulum to restore hip stability.
Usually the child is also placed in a cast to insure that the two ends of the bone don’t move while they are healing back together. This cast typically goes from the chest to the toes on the side that has been operated on and halfway down the other leg and is called a “hip spica cast”.

The cast is removed when there is evidence of healing on x-ray, usually at 4-6 weeks after surgery. The plate and screws can be left in indefinitely.

Because of the realignment of the bone the operated leg is slightly shorter than the other leg. This small amount of shortening usually does not cause any problems with walking or standing. Hardware removal may be required if bursitis forms around the plate and screws and is painful.