

CONSIDERING HIP REPLACEMENT ?

CONSIDER HIP SURGERY THROUGH THE MINIMALLY INVASIVE ANTERIOR APPROACH

The anterior approach for hip surgery provides significant advantages for patients: recovery is simplified and accelerated, dislocation risk is reduced, leg length is more accurately controlled and the incision is small.

The true anterior approach was first used for hip replacement over twenty years ago. Since then this technique has gradually been further developed and more refined so that it can now be applied to nearly all patients.

This approach is not more widely used because very few surgeons have learned the technique and the necessary instrumentation and equipment is not available in most hospitals. The surgery is facilitated today by a particular operating table that can uniquely position the leg and hip.

The true anterior approach exposes the hip joint directly from the front as opposed to more traditional approaches from the side (lateral) or back (posterior) of the hip. It should not be confused with the Hardinge and other so-called anterior approaches that actually use laterally placed incisions.

Rehabilitation is accelerated and hospital time decreased with the true anterior approach because the hip is replaced without muscle detachment from the pelvis or femur. While all other surgical techniques require detachment of muscle, the anterior approach, by contrast, replaces the hip through a natural interval between muscles. The gluteal muscles, the largest and most powerful muscles, are left entirely undisturbed.

Since these important muscles are left intact the hip is immediately stable and has a lower risk of dislocation. With all other surgical approaches it is necessary to follow strict precautions that limit hip motion for the first two months after surgery. Thus, even simple daily activities such getting into or out of a car might be extremely difficult or even dangerous. After hip replacement through the anterior approach, the hip is allowed to move more freely and these cumbersome restrictions are minimized - it is desirable to

use the hip. Additionally, if patients are sexually active before surgery, there are no limitations on the resumption of sexual activity after the surgery.

The normal incision is four inches but may vary depending on a patient's body size. Though small incisions are considered desirable, it should be kept in mind that the degree and type of tissue disturbance beneath the skin is far more important. Incisions of adequate length allow the necessary side-to-side separation without requiring excessive force. Too small an incision can be more traumatic to tissue, particularly to muscles that can be injured by being stretched too hard.

With the anterior approach the patient lies on their back during surgery. X-rays taken during surgery with a fluoroscope ensure correct position, size, and fit of the artificial hip implants. The correct leg length can also be more accurately determined using this technique.

Evaluation and treatment by a physical therapist usually begins the day of surgery, progressing rapidly to the previous level of walking and other activities. Patients go home as soon as they are able to get up from bed and walk independently, usually two to four days following surgery depending on the degree of disability and the possible presence of other medical problems.

What you also need to know about the:

THE IMPLANT

The artificial parts used to replace hips are called prostheses, components, or implants. Literally hundreds of different total hip designs exist today, while hundreds of other designs have been used and abandoned during the past thirty years. During this time there have also been millions of total hip replacement surgeries. Thus, much has been learned about these implants and certain characteristics of successful implants can be identified. The absolute newest and most innovative total hip implant may not necessarily be the best; a tried and proven design may be better for most patients.

Similarly, several different metals have been used: titanium, tantalum, chrome-cobalt, and stainless steel. Each of these metals, when used in an appropriate design, has proven to be successful and predictable. Ultra-high

molecular weight (or “high density”) polyethylene, a plastic, is most commonly used in hip replacements. Ceramics, exceptionally hard materials, have also been extensively used.

The match of implants – forming a ball and socket – creates a bearing allowing motion of the new hip joint. The standard, most widely used and predictable bearing combination is a chrome-cobalt femoral head (ball) against an ultra-high molecular weight polyethylene cup: a metal on plastic bearing combination. Other bearing combinations: metal against metal, ceramic on plastic, or ceramic on ceramic have also been used successfully. We now know that there are certain advantages but also potential as well as known disadvantages to these alternative bearing combinations.

THE SURGERY

The Surgical Approach

The route a surgeon takes from skin incision to hip is called the surgical approach. Various surgical approaches can be used for hip replacements.

The most direct approach to the hip is the true anterior approach, not to be confused with other so-called anterior approaches actually using a lateral (from the side) incision and route to the hip.

The anterior approach is used infrequently: it requires experience and special equipment not generally available. Nonetheless it is the most direct and minimally invasive approach to the hip. It requires only a single, small incision about four inches long. Muscles and tendons are gently separated and, unlike all other surgical approaches to the hip, none are severed, cut, or removed. This has important implications regarding early recovery and the resumption of normal activities. After a total hip replacement using the anterior approach you can expect a faster and safer recovery. The need for prolonged protection to allow muscles to heal is eliminated and the risk of dislocation, the hip coming out of its socket, is minimized.

The Surgeon

The true anterior approach to the hip is a significant advancement in hip replacement surgery. Being the second surgeon in North America to utilize

this surgical approach, Dr. Bradley has now done over 300 hip replacements in this manner.

YOU - THE PATIENT

Ultimately, successful surgery of any sort depends on the patient. This is especially true in orthopaedic surgery since there are certain requirements for a satisfactory and timely recovery. Unlike most surgeries, orthopaedic operations require rehabilitation and re-education of muscles. This aspect of recovery from hip replacement surgery is, on the other hand, minimized using a true anterior approach. Thus you will find that you regain strength, mobility, and coordination relatively rapidly.

Soon after the surgery you will be visited by a physical therapist who will help you out of bed to begin walking and exercising – to help you begin to get back to good hip health. You will learn some relatively simple exercises and the therapist will teach you how to get out of and back into bed.

Many hip replacement patients also have medical problems requiring ongoing evaluations or medication. Before hip replacement surgery an evaluation by your physician or, if you are not from the Santa Barbara area, a temporary local physician may be required. Your physician, or the temporary physician, will be available to help with your medical needs during the brief time you are in the hospital. It is possible that your recovery may be somewhat slowed by medical problems or by previous muscle weakness. You must remember that, although you have a new hip, the rest of you will not be immediately changed by the surgery. On the other hand, hip replacement surgery through the anterior approach will allow you to most rapidly resume your desired level of activity and to enhance your general health.