



SIZE REALLY DOES MATTER

"Doctor, I can't lose weight because my knees hurt too much". Although the Northern Beaches is synonymous with a healthy, active lifestyle, patients with osteoarthritis are increasingly presenting at a younger age and with a larger body mass index (BMI).

Just how big is the problem? The World Health Organisation estimated that in 2008 there were 1.5 billion overweight (BMI 25-30) and 500 million obese (BMI > 30) adults around the globe. In the USA, where almost a third of the population is considered obese, the "super-obese" category has been created to recognise the increasing incidence of those with a BMI greater than 50. The USA alone spent an estimated USD147 billion in 2008 on treating the DIRECT medical costs associated with obesity. This was similar to the estimated annual healthcare cost of smoking in that year.

How important is BMI in developing osteoarthritis? BMI has been shown to directly correlate with the risk of developing osteoarthritis (38% increased prevalence in those overweight, 400% in the morbidly obese). Studies on twins have concluded that BMI plays a more important role than genetic factors in the development of osteoarthritis. In addition to this, obese patients with arthritis have a much greater chance of needing a hip or knee replacement (8.5x with BMI > 30, rising to 32.7x with BMI > 40). They also present, on average, 10 years younger than their non-obese counterparts.

What are the risks of joint replacement in the obese? Aside from the technical difficulties in performing hip and knee replacements on obese individuals, the risk of a serious perioperative complication is greatly increased (and continues to rise with BMI). Obese individuals have been shown to have significantly higher rates of component malalignment, intraoperative fracture and ligament avulsion. They have more wound problems, increased DVT rates and longer hospital stays. Of particular concern is the far greater risk of serious post-operative infection (6.7x for TKR, 4.2 for THR).

Medical Complications of Obesity

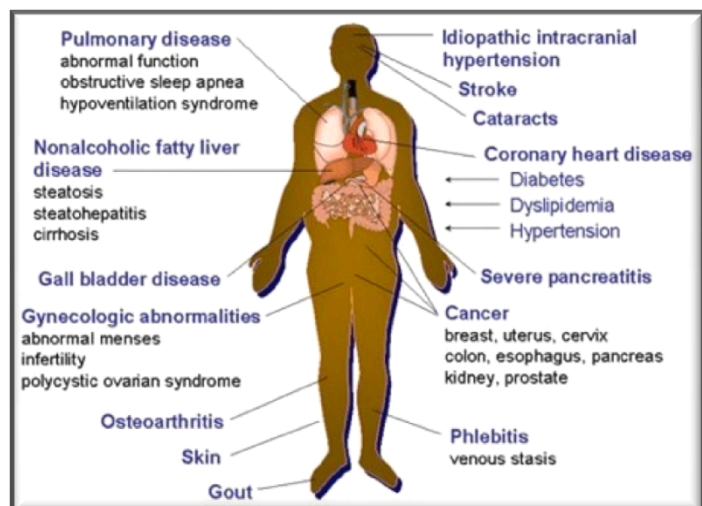
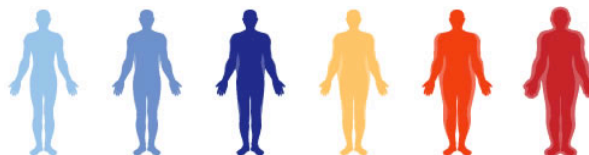


Chart using BMI & Waist Size for Accuracy

Underweight/Normal/Overweight/Obese/Clinically Obese/Morbidly Obese



Risk of Associated Disease According to BMI and Waist Size			
BMI		Waist less than or equal to 40 in. (men) or 35 in. (women)	Waist greater than 40 in. (men) or 35 in. (women)
18.5 or less	Underweight	--	N/A
18.5 - 24.9	Normal	--	N/A
25.0 - 29.9	Overweight	Increased	High
30.0 - 34.9	Obese	High	Very High
35.0 - 39.9	Obese	Very High	Very High
40 or greater	Extremely Obese	Extremely High	Extremely High

What can we do to reduce the risk of surgery? It's easy for a health care provider to recommend a sensible diet combined with a low impact exercise program involving activities such as swimming, cycling and walking. Successfully implementing this is much, much harder! Studies have shown that the involvement of a dietician can result in long-term weight loss and symptomatic improvement.

The role of bariatric surgery before hip and knee replacement is not entirely clear but worth consideration. Some authors have reported excellent results with both weight reduction and subsequent surgical outcome. Others caution that this particular group of patients is prone to malnutrition and associated problems. Hormonal manipulation may become an option in the future as the role of leptin and adiponectin is clarified. Another recent approach is to investigate obesity as part of the "Metabolic Syndrome" consisting of hypertension, hyperlipidaemia and hyperglycaemia. This has not yet yielded any practical therapeutic options.

For those that cannot successfully manage their obesity, there is some good news. Most of the literature suggests that in the short to medium term following hip or knee replacement surgery, obese patients have similar increases in functional scores and satisfaction rates as their non-obese peers. Implant survival rates also appear to be similar. There is, however, a strong body of research that shows most obese individuals DO NOT lose weight after their joint replacement and patients should not view their surgery as a miracle cure for this!

Osteoarthritis is but one manifestation of the increasing levels of obesity in our society today. Helping these people manage their weight is difficult, time consuming and often unsuccessful but the potential overall health benefits enormous. With careful navigation of the minefield of known risks and complications, obese patients can still achieve excellent results following hip or knee replacement.

Article by Dr Sam Chia references supplied upon request



Peninsula Orthopaedics welcomes two new talented specialists in Hip, Knee and Trauma Surgery



Dr Sam Chia
MBBS FRACS FAOrthA

Dr Chia is a specialist orthopaedic surgeon with an interest in disorders of the hip and knee. He has particular expertise in primary and revision joint replacement as well as arthroscopic procedures of these joints. In addition to this, he treats a significant amount of general orthopaedic trauma. **Dr Roberts** also specialises in hip and knee surgery. He has a particular interest in acute injuries of the knee including meniscal repair and anterior cruciate ligament reconstruction. He also has extensive training and experience in primary and revision arthroplasty of the knee and hip as well as general orthopaedic trauma. Along with all specialists at Peninsula Orthopaedics, Sam and Chris provide a **48-Hour Acute Trauma Management Service** for general orthopaedic trauma patients.



Dr Chris Roberts
BMBS FRACS Orth

PENINSULA WHO'S WHO

Dr Michelle Atkinson 9874 2440

- Surgery of the cervical, thoracic and lumbar spine

Dr Neal Betts 9981 4077

- Surgery of the hand, elbow and shoulder, including trauma

Dr David Carmody 9411 7045

- Foot, ankle and knee surgery

Dr Sam Chia 9984 9222

- Hip, knee and trauma surgery

Dr David Dickison 9972 9100

- Knee and arthroscopic surgery

Dr Mark Hile 9971 6348

- Hand and wrist specialist

Dr Hagop Kiyork 9979 1273

- Knee and hip surgery, knee arthroscopy and reconstruction

Dr Ed Marel 9971 8018

- Hip resurfacing, hip and knee replacement, arthroscopy

Dr Chris Roberts 9972 9111

- Hip, knee, trauma and arthroscopic surgery

Dr Robert Sew Hoy 8065 5357

- Hip and knee surgery

Dr Matt Sherlock 8403 8022

- Shoulder and elbow surgery

Dr Len Walter 9984 9888

- Hip resurfacing, hip and knee replacement, arthroscopy

Pacific Hand Therapy

Anne Wajon & Associates 9984 9040

- Hand & Upper Limb Physiotherapy Practice

It has been our privilege to provide complete orthopaedic specialty services in one location for 15+ years. Our surgeons provide **Acute Trauma Services** in private and public hospitals on the northern beaches and the north shore, attending trauma patients after hours and on weekends, thus providing local care for the convenience and well-being of patients. Having two major radiology practices close by as well as physiotherapists onsite also makes life easier for our patients as we strive for excellence in care and outcome at all levels.



Terrie Janssen
Practice Manager

One of my goals as the new practice manager for Peninsula Orthopaedics is to establish and cement excellent communications and relationships between our practice, clinicians and hospitals on the northern beaches and north shore. I will be happy to assist you with any enquiries you may have – please feel welcome to contact me anytime via email - terrie@penorth.com.au or by phone Tuesday to Thursday (direct 9982 4803 or 9984 8044)

Please visit us at www.penorth.com.au