



WAKEFIELD HEALTH  
LIMITED

# AWAKE

A Wakefield Health Magazine for GPs. Issue 3 Spring 2011

## Medial Osteoarthritis of the Knee



Area: Orthopaedics

Article written by: Mr Russell Tregonning (above right) and Mr Grant Kiddle (above left), Orthopaedic Surgeons, Bowen Hospital, phone (04) 479 1551

### Total Knee Replacement (TKR) or Unicompartmental (Partial) Knee Replacement (UKR)?

Specialist knee surgeons at Bowen Hospital give patients the option. If all indications are met, patients receive the minimally-invasive operation with its lesser morbidity. The New Zealand Joint Registry (NZJR) records show that partial knee replacement has better clinical results and a lower deep infection rate.

#### Introduction

Knee joint replacement is a very common orthopaedic operation, second in number in New Zealand only to hip joint replacement (63,000 hip joint replacements and 51,540 knee joint replacements were performed in the last ten years<sup>1</sup>). Most operations are done for disabling osteoarthritis (OA) of the tibio-femoral joint. Approximately 85% of OA knee is mainly confined to the medial compartment, and mainly-medial OA is approximately ten times more common than mainly-lateral OA.

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# Chief Executive's Message

Andrew Blair, Chief Executive, Wakefield Health Limited,  
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It is a pleasure for Wakefield Health Limited to present to you this third edition of our magazine prepared especially for General Practitioners.

### Title competition

This edition will be the last published as "AWake", and next year we will give the magazine a new name. The reason for the name change is mainly because there are several other magazines with similar names, and we want a name that resonates strongly with our GPs. However, our focus won't change in terms of bringing you the high quality coverage that you expect. Feedback from GPs has been very positive and guided by your suggestions and support we aim to continue producing these publications for your benefit and enjoyment.

We would value your ideas for a new name for this magazine and are offering a dinner for two at Logan Brown, or a restaurant of your choice (if you live outside of Wellington), for the best suggestion.

### Expansions

The last few months have been a busy period for Wakefield Health as we have purchased Norfolk Investments Limited which owns 60% of Grace Hospital in Tauranga. Grace is the only private surgical hospital in the Bay of Plenty, a region experiencing considerable population growth and ageing.

We have also acquired a 30% interest in both Endoscopy Auckland Limited and Laparoscopy Auckland Limited. These are complementary businesses which share the same site in Gillies Avenue in Epsom, Auckland and were founded by laparoscopic surgeon and endoscopic specialist Mr John Dunn. They are very busy units with a nationwide reputation for the quality services they offer.

### Our focus

Despite our enlarged scale and geographic spread following these acquisitions, I want to assure you that our focus remains very much on the three hospitals we fully own and operate – Wakefield and Bowen Hospitals in Wellington and Royston Hospital in the Hawke's Bay. These hospitals enjoy the strong support of the region's highly respected specialists and we welcome the opportunity through this magazine for some

of the consultants who work in our hospitals to share with you news and advice about their particular areas of specialty and interest. We hope you find these articles to be of value and interest.

**I want to assure you that our focus remains very much on the three hospitals we fully own and operate.**

### 2012 GP Conference

We take this opportunity to remind you to record in your diary the date for the 2012 Wakefield GP Conference to be held in Wellington on 13-14 April 2012.

We thank you for the support you give us through your referrals to our hospitals and the specialists who consult and operate in them.

Kind regards  
Andrew Blair, Chief Executive

### Naming competition

Our magazine needs a new name and we need your help...

Wakefield Health Ltd's publication for GPs is about to undergo a name change and we would value your suggestions. Wakefield Health Ltd will decide the winning name based on originality and creativity. In the event that the best suggestion is provided by more than one person then the winner will be chosen from a separate draw.

If your suggestion is chosen you will **win a dinner for two at Logan Brown**, one of Wellington's finest restaurants, or a restaurant of your choice (if you live outside of Wellington) to the value of \$300.

You may enter as many times as you like. Please email your suggestions to [persephoneg@wakefield.co.nz](mailto:persephoneg@wakefield.co.nz) by 31 December 2011. Please include your contact details with your entry.



# Back Pain Management

From left, Mr Chris Hoffman, Mr Peter Welsh and Mr Chris Gregg, General Manager TBI/Physiotherapist.



Area: Orthopaedics  
Article written by: Mr Chris Gregg, General Manager TBI/Physiotherapist

We are all aware of the dramatic increase in the incidence and impact of chronic low back pain (CLBP) in the community. Health costs in this country for the treatment for CLBP have escalated with increasing rates of advanced imagery, surgery, interventional therapies, as well as reduced workforce productivity and increased earnings compensation.

### Background

In 2001, orthopaedic and spine surgeons, Mr Peter Welsh and Mr Chris Hoffman, along with physiotherapist Mr Chris Gregg, introduced a back pain management programme to Wakefield Hospital that was based on an established North American spine care model known as The Canadian Back Institute. The Wakefield Back Institute (now known as TBI Health) was a successful concept and over the past decade the company has grown to have ten clinics established throughout the North Island with a full clinical team of orthopaedic specialists,

physiotherapists, occupational therapists, clinical psychologists and exercise consultants.

### The programme

The back pain programme itself is characterised by a classification approach to the diagnosis of low back pain and a structured, inter-disciplinary intervention consisting of client education and active exercise to help patients to control their back pain, improve their activity levels and address psychosocial barriers to recovery. Patients are screened on assessment to ensure they enter the most appropriate programme and an orthopaedic specialist is available to see patients with suspected organic disease, alternate musculoskeletal pathology, for example hip osteoarthritis, or those who do not respond to conservative rehabilitation.

A key component of the programme is a customised software programme that monitors and records baseline levels relating to patient

demographics, symptoms, functional capacity and vocational status throughout assessment, discharge, and follow-up milestones. All patients with CLBP who attend the programme are tracked on a database so that the clinical team can establish the outcomes, and success of the patients' individual programmes.

For further orthopaedic and spine information please contact Mr Chris Hoffman, Orthopaedic Surgeon, Wakefield Hospital, phone (04) 233 0680 and Mr Peter Welsh, Orthopaedic Surgeon, Wakefield Hospital, phone (04) 381 8690



For further information, please visit [www.tbihealth.co.nz](http://www.tbihealth.co.nz) or call 0800TBIHEALTH

### Results

A recently published audit reviewed the results for 1,076 patients that were referred to the programme over a three year period.

- The results demonstrated a statistically significant and clinically relevant difference for the group in both pain and functional scores between assessment and discharge ( $p < 0.001$ ) and between assessment and follow-up ( $p < 0.001$ ) milestones.
- Furthermore, 87% of patients reported that their pain had gone or decreased when compared to their symptoms at assessment.

### Review full results

For those with an interest in spine rehabilitation, the full results of the audit can be reviewed in the September 2011 edition of the New Zealand Journal of Primary Health Care.





# Medial Osteoarthritis of the Knee

Continued from front page.

## Which knee joint replacement to use: Total (TKR) or Partial/Unicompartmental (UKR)?

When a surgeon is confronted with a patient with mainly-medial OA there is a decision to be made, for example, on whether to replace the whole tibio-femoral joint or just the medial compartment. The indications for a successful medial UKR are more stringent than those for TKR. The patient should have all ligaments intact, the knee should be mainly mobile, and the articular cartilage in the opposite lateral compartment should be near normal. The proportion of OA knees needing knee replacement who satisfy these criteria varies with patient populations, but is somewhere between 30 and 60%.

## The advantages of UKR are:

- **Faster recovery, decreased hospital stay, and no blood transfusion**
- **Decreased morbidity with fewer complications including deep infection**
- **Preservation of bone and cruciate ligaments**
- **Greater patient satisfaction in comparative trials, better range of movement (ROM)**
- **Cheaper prosthesis.**

The reasons for choosing UKR over TKR are related to the smaller operation with less dissection, particularly with minimally-invasive surgery, for example, a smaller incision and no dislocation of the patella (see figure 1).

Despite these advantages, in New Zealand most surgeons choose to replace the whole tibio-femoral joint (by a ratio of approximately 9:1). When they do perform UKR, most (66%) use a conventional rather than minimally invasive approach<sup>1</sup>.

## National Joint Registries

The New Zealand Joint Registry (NZJR) is one of only six world-wide (alongside registries in Scandinavia and Australia) which has over 90% of its country's total number of joint replacement cases recorded. New Zealand is almost unique in recording data collected from patients who assess the quality of their own result after their operation answering 12 questions about their pain and function to give a total score out of 60 (the Oxford 12 Score). The NZJR data is used by surgeons for audit (compulsory to gain College accreditation) and, increasingly, for research.

## Results of TKR and UKR

The registries measure revision rates (RRs) for all prostheses used. Using a standardised measuring tool (revisions per 100 observed component years), datasets with different numbers of cases and follow-up periods can be compared directly with each other. Using this indicator, New Zealand surgeons compare well with their international counterparts. Data from the Swedish and Australian registries combined<sup>2</sup> shows RR for TKR at 1.26 and medial UKR at 1.53. The equivalent rates for New Zealand<sup>1</sup> over ten years are 0.54 for TKR, and 1.43 for medial UKR.

The RR for UKR in New Zealand being nearly three times greater than for TKR<sup>1</sup> may be the reason why New Zealand surgeons favour TKR over UKR. However, a closer analysis of the NZJR results shows that a higher RR does not mean that the UKR prosthesis is less successful clinically. In fact the reverse appears to be the case<sup>3</sup>.

A powerful measure of success, the patient-derived Oxford Knee Scores favour UKR over TKR. For example, the Mean Knee Scores and proportion of excellent and good results are both better for UKR. Also, for knees with low scores (less than 20) the UKR was about six times more likely to be revised than TKR. This is not surprising as the revision of a unicompartmental knee arthroplasty (UKA), usually to a primary TKR, is technically more simple and less hazardous than revision of a failed TKR (which causes much more bone loss). This difference in the ease of revision means that surgeons are much more likely to revise a failed UKR than a failed TKR. This fact alone might entirely explain the difference in RR<sup>3</sup>.

Deep infection is the most feared complication of knee replacement as removal of the prosthesis and later reimplantation is often required with an inferior final result highly likely. The ten year comparison of revision for deep infection shows a significant difference in favour of UKR (UKR 4.2% and TKR 13.1% of all revisions).

It therefore appears to be the case that in New Zealand, at least, the prosthesis with the higher revision rate (UKA) has the better clinical results<sup>3</sup>.

## Our Experience at Bowen Hospital

Over the past ten years, we have been offering patients with medial OA knee a choice: partial minimally-invasive Oxford UKR (see figure 2) in patients satisfying the stringent indications; or TKR. The last three years' data shows that we have performed 103 TKRs and 76 UKRs, a ratio of approximately 1.3 to 1, which compares to national New Zealand data of approximately nine TKRs to one UKR<sup>1</sup>.

## Conclusions

New Zealand Joint Registry data and our experience beg the question:

**"...why discard the normal lateral compartment and anterior cruciate ligament when a less invasive, more clinically successful operation gives what patients perceive as a better and more durable result?"**

## References

1. New Zealand Orthopaedic Association National Joint Registry. Ten and eleven year reports. <http://cdhb.govt.nz/njrl/reports/A2D65CA3.pdf>
2. Labek G, Thaler M, Jander W, Agreiter M, Stockl B. Revision rates after total joint replacements. Cumulative results from worldwide joint register datasets. *J Bone Joint Surg (Br)* 2011; 93-B:93-7
3. Goodfellow JW, O'Connor JJ, Murray DW. A critique of revision rate as an outcome measure; reinterpretation of knee joint registry data. *J Bone Joint Surg (Br)* 2010; 92-B:1628-31

## Acknowledgement

- Our thanks to Dorothy Shaw, Hospital Manager, Bowen Hospital, for her work in providing the statistics at Bowen Hospital.

Mr Grant Kiddle and Mr Russell Tregonning are Orthopaedic Surgeons consulting from Bowen Hospital, Crofton Downs, Wellington.

Appointments can be made by calling (04) 479 1551.



**Figure 1.** This shows the minimally invasive incision used for medial unicompartmental surgery.



**Figure 2.** The Oxford medial unicompartmental knee replacement is the most popular in New Zealand.





# Our Changing World



## Wakefield Health GP Conference 2012

FRIDAY 13th & SATURDAY 14th APRIL 2012, TE PAPA, WELLINGTON

### Our Changing World

The main theme for the conference is 'Our Changing World' which is being interpreted as new developments and new ways in which we are adapting our work practices. Go to [www.wakefieldhealth.co.nz](http://www.wakefieldhealth.co.nz) for a copy of the conference programme, keynote, conference and workshop speakers, costs and conference information.

### Visit Wellington

*The GP Conference coincides with the April 2012 school holidays. The holidays are an ideal opportunity to explore Wellington with the kids whilst you're here for the conference. So make sure you plan ahead, to make the most of your time in the capital.*

Put it in your diary early!

**For a copy of the registration brochure contact Janine Boon on (04) 494 5121 or email [jboon@acumenrepublic.com](mailto:jboon@acumenrepublic.com) or register online at [www.wakefieldhealth.co.nz](http://www.wakefieldhealth.co.nz) and follow the GP Conference link.**

## Breast Cancer Surgery and Reconstruction



Mr David Glasson



Mr Burton King

Area: Plastics/General

Article written by: Mr David Glasson, Plastic Surgeon, Bowen Hospital, phone (04) 479 2700 and Mr Burton King, Breast Specialist and General Surgeon, phone (04) 475 7670

The management of breast cancer is multi-disciplinary, involving diagnostic radiologists, breast surgeons, plastic surgeons, medical oncologists, and radiation oncologists. All these specialists must work together to provide integrated treatment for each patient.

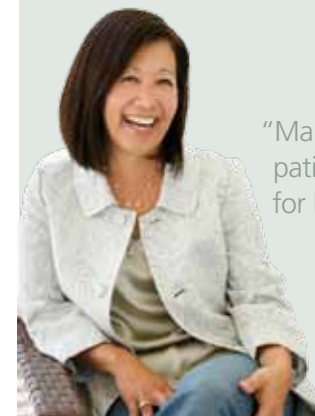
Burton King specialises in breast surgery and has established **The Breast Centre** at Bowen. **The Breast Centre** will be located in the new Bowen Centre in Crofton Downs, Wellington. Breast cancer patients will benefit from having Pacific Radiology and plastic surgeons in the same building, and from having their surgery on the Bowen campus.

Patients will be seen at **The Breast Centre** for assessment, investigation, and workup of breast abnormalities such as breast pain and breast lumps. Lymphoedema therapy and specialist nurse counselling will be available on site. Patients who have been diagnosed with breast cancer or ductal carcinoma in situ (DCIS) by the Breast Screening Programme may also be referred to **The Breast Centre**.

Burton King is able to perform breast ultrasound at consultation with biopsies if needed. He coordinates investigations such as mammography, stereotactic core biopsy, and breast MRI with the radiologists at Pacific Radiology.

The first operation might involve hook-wire guided biopsy. Once a cancer is diagnosed, small lesions can be treated with wide local excision and radiation. Larger cancers and extensive DCIS require removal of all the breast gland by mastectomy. The axillary lymph nodes are managed in several ways. Sentinel Node Biopsy is a method where the lymph nodes most likely to contain metastatic disease are identified and removed for analysis. In other circumstances, all the axillary lymph nodes are removed by more extensive lymph node dissection.

Many breast cancer patients will be suitable for breast reconstruction, and David Glasson is a plastic surgeon who often operates with Burton King to perform simultaneous mastectomy and immediate reconstruction in one operation. For some patients, immediate reconstruction may not be appropriate, and secondary reconstruction can be offered following the cancer surgery and adjuvant treatments (chemotherapy and radiation).



"Many breast cancer patients will be suitable for breast reconstruction."

### Three main techniques of breast reconstruction

Many factors must be considered in planning the reconstruction, for example, breast size and shape, tissue quality, body shape and body mass index, available tissue for transfer, co-morbidities, and patient preference.

**1 Tissue expansion:** this is a staged technique where a breast shaped expander is placed beneath the pectoral muscle and breast skin after the mastectomy. Once healing is complete, the expander is inflated with saline each week, until the desired breast volume is achieved. Chemotherapy and radiotherapy may be given during this period. At a second stage, the expander is removed and replaced with a breast shaped, silicone gel implant. While implants are very useful and have excellent longevity, there may be the need for future surgery for implant replacement.

**2 Latissimus Dorsi (LD) flap:** this technique transfers the latissimus dorsi muscle, and a thin layer of fat, from the back to the breast. Sometimes, for a small breast, this will be sufficient for the reconstruction. Usually the LD flap is combined with an expander to adjust the breast volume in the following weeks. The LD flap is very useful for lean patients with thin tissues, who do not have TRAM flap tissue available in the abdomen, and who require more soft tissue to conceal the implant in the breast.

**3 Transverse Rectus Abdominus Myocutaneous (TRAM) flap:** there will often be sufficient spare tissue in the lower abdomen for breast reconstruction. This tissue can be transferred on one rectus muscle as a "pedicle". Some surgeons will use microsurgery to transfer the flap as a "free flap", and there are positives and negatives for all the variations of this flap. The beauty of the TRAM flap is that the breast is made of the patient's own tissue without the use of an implant.

Once the breast is reconstructed, final procedures include nipple reconstruction, tattooing of the nipple and areola, and sometimes treatment of the opposite breast with reduction, augmentation or lift.

Other breast problems treated by plastic surgeons include the correction of congenital breast anomalies such as tuberous breast, the reduction of very large breasts, the augmentation of small breasts, and the lifting of ptotic breasts. These patients all have in common the wish for normal proportion and symmetry, and there are many techniques which can be applied to help them.

The Bowen Centre specialists, and Bowen Hospital, can provide a complete service for the investigation and surgical treatment of breast disease. The plastic surgeons can provide breast reconstruction, both immediate and secondary, as well as the usual elective breast procedures.

Burton King and David Glasson have their practices in adjacent suites in the Bowen Centre. They provide a comprehensive service to breast cancer patients requiring mastectomy and reconstruction.



# Hallux Valgus (Bunion)



Mr Jon Cleary

Area: Orthopaedics  
Article written by: Mr Jon Cleary, Orthopaedic Surgeon, Wakefield Hospital, phone (04) 381 8100



Many women are slaves to fashion. The forefoot comes to mind as an area where pain, when it arrives, is most unexpected, and can be difficult to diagnose and treat. However, hallux valgus, or bunion, is a very common forefoot problem with multiple treatment options.

Typically bunion presents as either a cosmetic deformity with difficulty fitting wished for footwear, or with pain, particularly medially, when trying to get into footwear that will not accommodate the deformity present. Almost uniformly this is a female problem, males typically buying shoes that are wider to cope with the deformity and discomfort, and presenting later with more degenerative problems causing pain and requiring different surgical approaches.

“Typically bunion presents as either a cosmetic deformity with difficulty fitting wished for footwear, or with pain, particularly medially, when trying to get into footwear that will not accommodate the deformity present.”



Figure 1.  
Pre-operative

Figure 2.  
Post-operative

When the patient presents with a bunion, pain is an important symptom to document, the site of pain being very important. Medial pain over the first metatarsal head can be solved by decreasing the width of the forefoot, with most operative approaches addressing this. Plantar pain, dorsal pain and midfoot pain are much more important to be aware of as these may well limit surgical options.

### Examination

Examination will confirm the hallux valgus deformity, but look for range of motion with dorsiflexion at the first metatarsophalangeal (MTP) joint in the most corrected position (hopefully 40 degrees or more). This is to exclude a supervening hallux rigidus. Look at the first tarsometatarsal (TMT) joint area for pain on palpation. Instability here can cause hallux valgus and pain,

it being important to address this area as well as the first MTP joint deformity, or surgery will not be successful. Document the neurovascular status of the feet also. (Note surgery for hallux valgus secondary to first TMT joint instability or with supervening osteoarthritis is not covered here.)

Weight-bearing x-rays (refer to Figures 1 and 2) of the feet are important, anteroposterior (AP), oblique and lateral views to look at all the areas of interest.

### Surgery

Once the surgery option has been chosen, in the absence of marked degenerative changes at the first MTP joint, a procedure to decrease forefoot width, correct the hallux valgus and maintain range of motion of the first MTP will give a long-lasting and satisfying result to the patient.

Typically the patient will mobilise post-operatively full weightbearing in a surgical shoe. With a successful ankle block, there should not be much in the way of pain post-operatively so long as the patient spends most of the first two weeks with the foot well elevated. To prevent joint stiffness, it is very important that the patient works hard at mobilising the first MTP joint immediately post-operatively for about three months to regain maximal movement. The surgical shoe is discarded six weeks post-operatively, and the swelling around the forefoot will slowly resolve over five months. The screws used for internal fixation are buried in bone and do not usually require removal.

Mr Jon Cleary is an Orthopaedic Surgeon with particular interests in foot, ankle, knee and shoulder surgery. He consults from the Wakefield Specialist Medical Centre and from Kapiti Radiology.

Appointments can be made through the Wakefield Specialist Medical Centre on (04) 381 8120.

# ACC Treatment Injury

## The New Zealand Experience



Mr Denis Atkinson

Area: Orthopaedics  
Article written by: Mr Denis Atkinson, Orthopaedic Surgeon, Royston Hospital, phone (06) 873 8008

This article provides a précis of Mr Denis Atkinson’s presentation to the Combined English Speaking Orthopaedic Conference in Glasgow in September 2010 where he provided an overview of the ACC Act, specifically Treatment Injury trends as they relate to orthopaedic practice in New Zealand.

In 1974 New Zealand adopted a state funded universal no fault compensation scheme for personal injury. The scheme provides comprehensive no fault personal injury cover and entitlements to the injured person.

In exchange for comprehensive cover, people do not have the right to sue for personal injury covered by the scheme. It remains possible to bring action for exemplary damages, however the Courts have ruled that an element of conscious or reckless conduct is necessary for an action to succeed.

Since the inception of the scheme, patients have received cover and entitlements for injury sustained as the result of medical intervention. The initial legislation provided cover, specifically for medical misadventure. Medical misadventure included:

- **Medical error** – which required proving fault on the part of the health profession
- **Medical mishap** – which required the event or injury to be both rare and severe.

The necessity to prove fault was inconsistent with the ‘no fault’ status of the ACC Scheme. Under the Medical Misadventure criteria there was a low acceptance of patient claims and often prolonged delays in providing cover and entitlements.

Following extensive consultation with key stakeholders in New Zealand, the ACC Act was amended in 2005 to provide cover for patients suffering Treatment Injury. The need to prove that the health professional was at fault or that the condition was rare or severe was removed.

The treatment provisions have been in use now for five years. Treatment Injury provisions have particular relevance to the practice of orthopaedic surgery in New Zealand. Treatment Injury is defined as “an injury caused as the result of seeking or receiving treatment from a registered health professional”.

### “Treatment” includes

- The giving of treatment or prophylaxis
- Delays or failures to diagnose, provide treatment, refer, or follow-up
- Failure to obtain informed consent
- Failure of any device, or tool used as part of the treatment process, including the failure of a prosthesis
- The application of support systems, including policies, processes, practices and administrative systems.

### Treatment Injury eligibility for cover

- Personal injury as a result of treatment by a health professional
- The treatment, not the health condition or some other factor, is the cause of injury.

### Treatment Injury exclusions

- If it is a health condition before receiving treatment
- A necessary part, or an ordinary consequence of treatment
- Caused by a decision an organisation made when allocating health resources

- Caused because the claimant unreasonably delayed or refused to give consent for treatment.
- This refers to events that are intended or a planned part of the treatment
- Examples include the surgical incision or ordinary bruising following an operative procedure.

### “A necessary part”

- This refers to events that are intended or a planned part of the treatment
- Examples include the surgical incision or ordinary bruising following an operative procedure.

### “Ordinary consequence” of treatment

- Includes usual or expected results of treatment, such as hair loss after chemotherapy
- The definition is dependent on the individual patient and the circumstances of the treatment event
- The concept is the subject of judicial interpretation.

The Courts have determined that known complications are not necessarily excluded from cover. The Courts have established that the ordinary consequence criterion should be interpreted to refer to injuries which are expected or usual.

A good example of this is a wound infection following Total Knee Replacement. Such infection may require debridement surgery with a prolonged period of intravenous antibiotics. Wound infection is a known risk of treatment but it may not be regarded as an expected and ordinary consequence of elective surgery.

### Funding

Treatment Injury is funded from earners’ and non-earners’ accounts which include earners’ levies (PAYE) plus self-employed levies based on earnings, in conjunction with direct Government funding.

The total number of Treatment Injury claims lodged with the ACC since July 2005 reached 31,103 at the end of June 2010, with an overall 66% acceptance rate. The median timeframe for making cover decisions was in the order of 37 days. The majority of Treatment Injuries are identified after discharge from treatment. GPs are the most common group lodging claims.

### Orthopaedic Claims 2005-2010

Fiscal Year of Cover Decision	Number of Accepted Orthopaedic Claims	Total Cash Costs
2005-2006	247	\$804,518
2006-2007	424	\$3,809,338
2007-2008	757	\$6,757,770
2008-2009	867	\$11,084,098
2009-2010	905	\$9,451,299
Total	3,200	\$31,907,023

Targeted and appropriate claims lodgment is a high priority for the Treatment Injury Centre. Treatment Injury claim lodgment has grown rapidly over the first five years of this scheme. Much of this growth has been in high volume, low cost injuries such as allergic reactions. Claims growth can be attributed, in part, to some cost shifting, often driven by public hospitals and insurance companies.

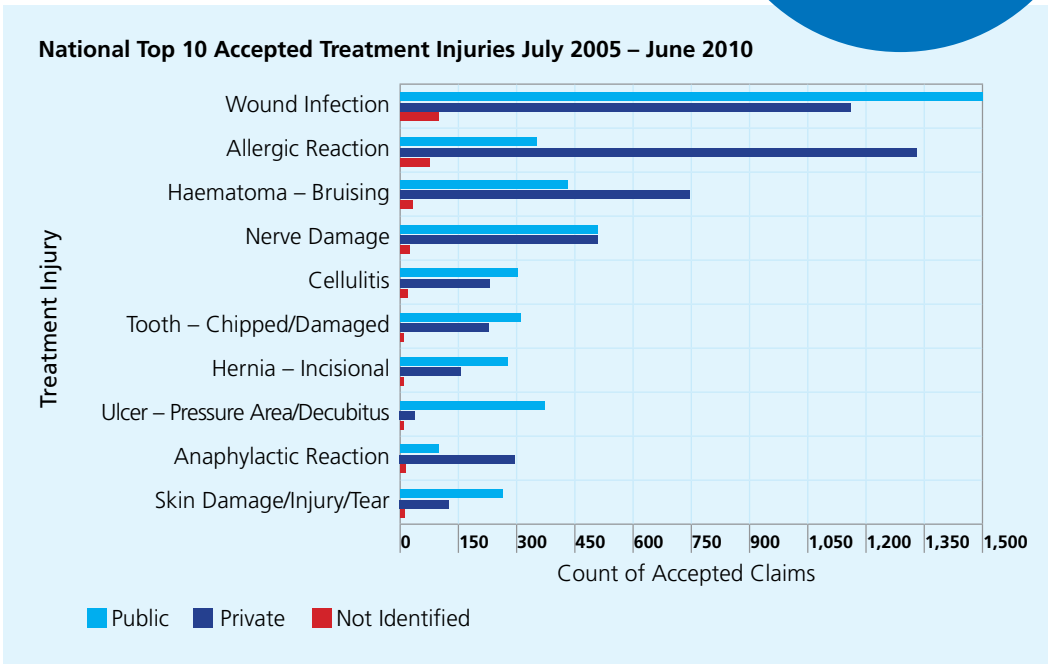
Treatment Injury is defined as “an injury caused as the result of seeking or receiving treatment from a registered health professional”.

### Accountability

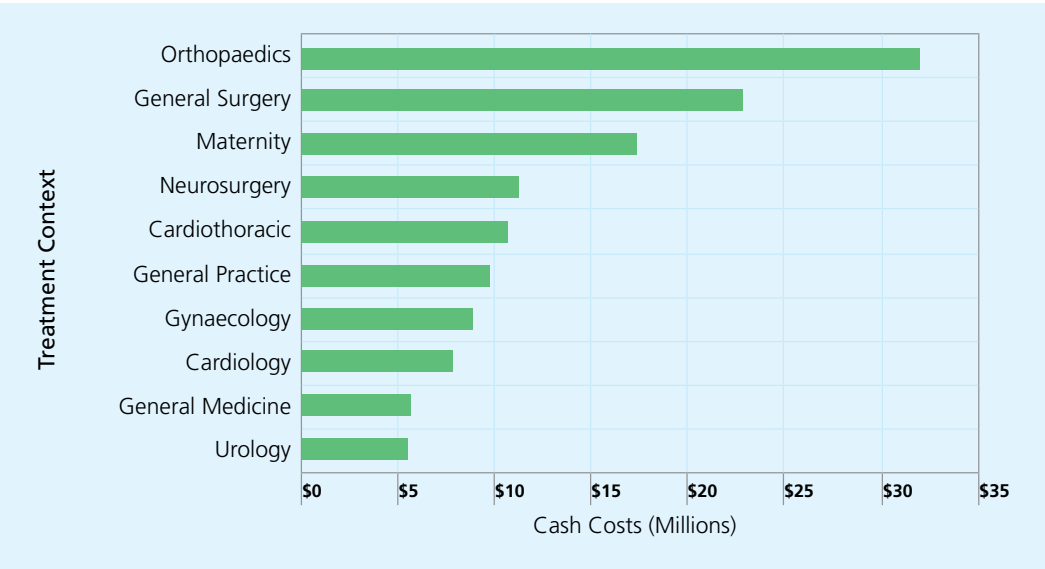
If there is a risk of harm to the public arising from information collected in the course of assessing claims for Treatment Injury, the ACC has a statutory obligation to report the risk to the authority responsible for patient safety in relation to the treatment that caused the injury.

The role of the ACC is to provide early and equitable compensation to the injured patient. The focus of the ACC is not to consider issues of competence or fault.

Medical accountability in the New Zealand environment is provided by the Health & Disability Commissioner. The Commissioner promotes patients’ rights and provides accountability where care is below standards. The Commissioner widely publishes findings to improve health services and patients’ safety. The Commissioner acts as a conduit to Disciplinary Tribunals. In New Zealand the Human Rights Review Tribunal provides an avenue for modest damages awards. Exemplary damages remain available for contumelious or egregious behaviour.



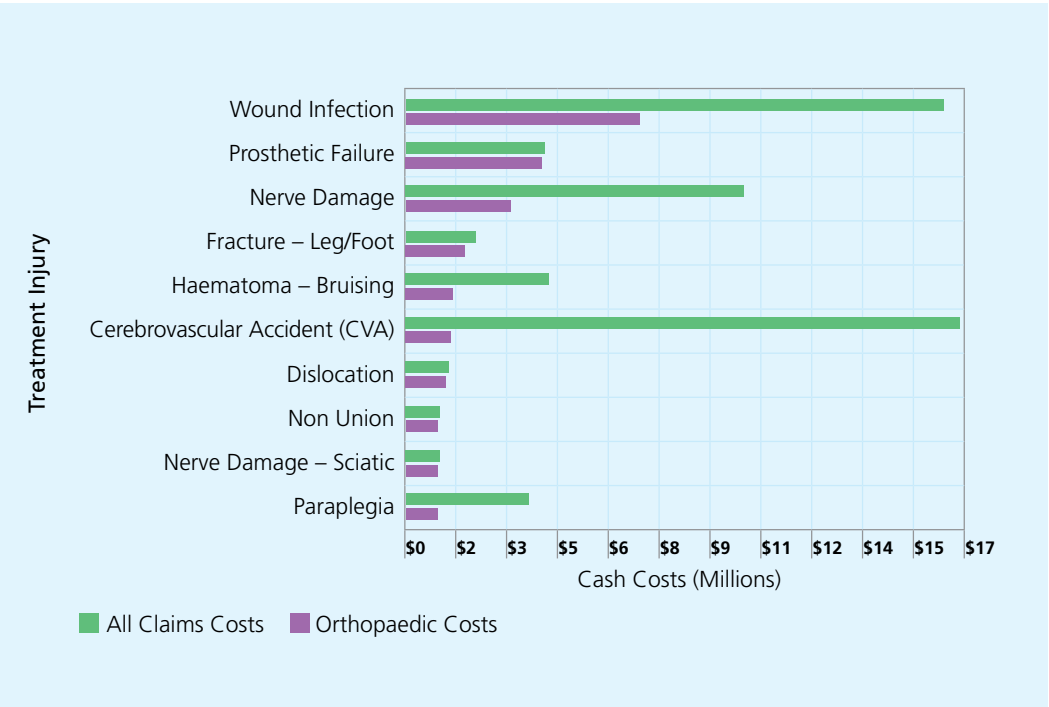
### Treatment Injury by Specialty



The major cost for orthopaedic Treatment Injury relates to wound infection, particularly in relation to hip and knee replacement surgery. The majority of Treatment Injury claims relate to hip and knee joint replacements.

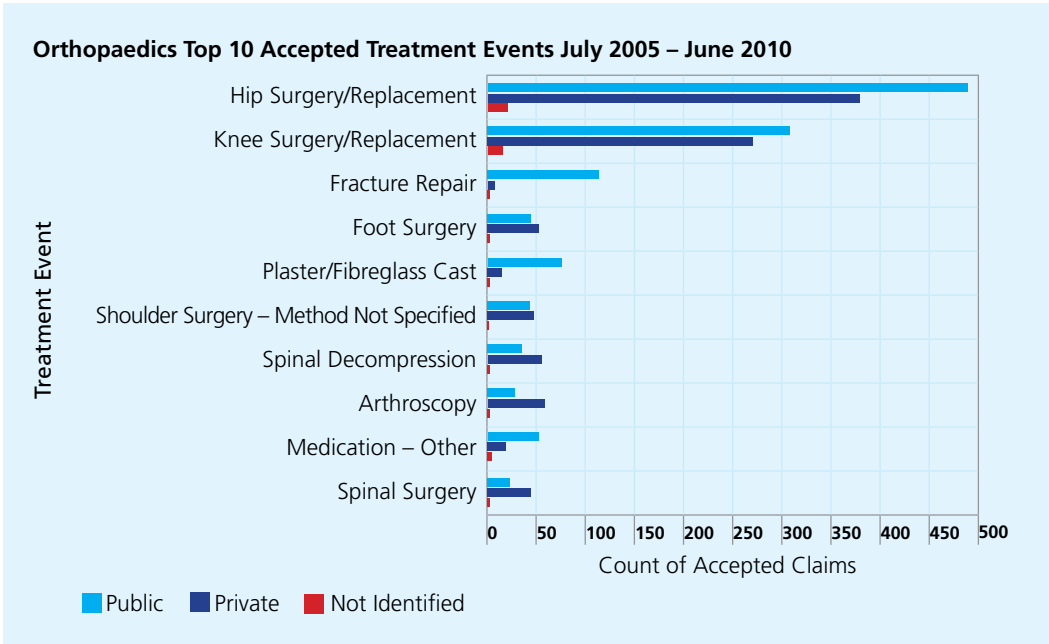


Treatment Injury  
Orthopaedic Cash Costs

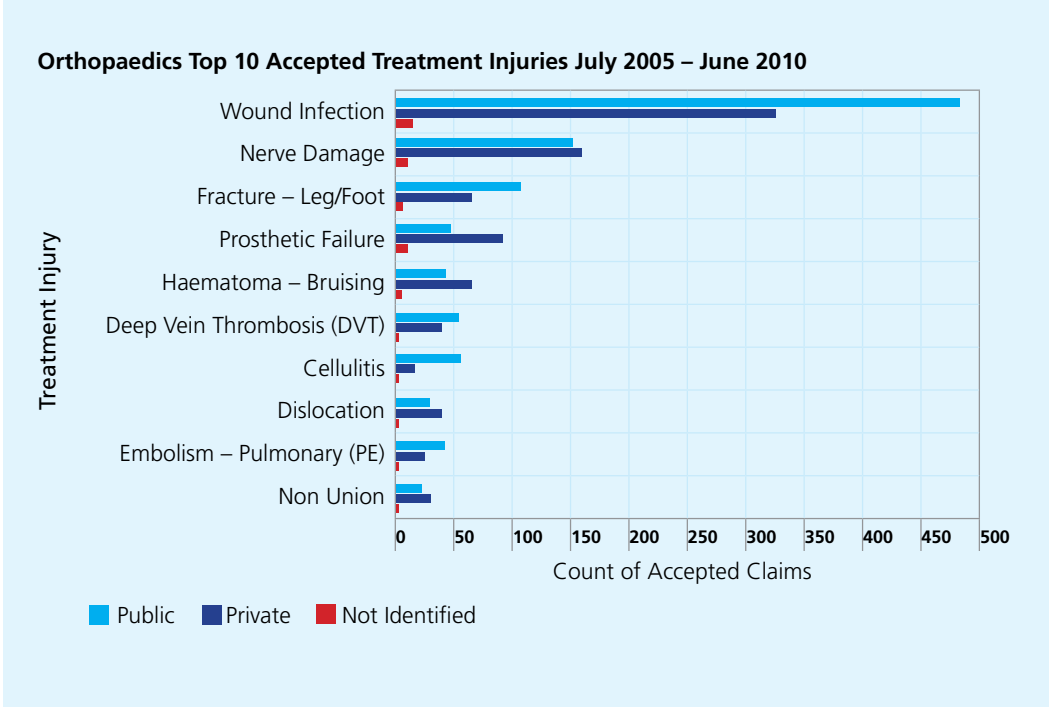


\$32m  
Orthopaedic Cash Cost  
2005 – 2010

Treatment Injury  
Orthopaedic Events



Treatment Injuries  
Orthopaedic



Peri-prosthetic fractures are commonly associated with hip and knee replacement. One hundred and six claims for prosthetic hip component failure have been accepted (Harris Galante II predominant). Deep Vein Thrombosis claims have been accepted. These injuries are associated with knee replacement, cast immobilisation and knee arthroscopy. Twenty-four cases of pulmonary embolism following knee replacement have been accepted, along with 11 cases of pulmonary embolism following hip replacement. There remain some grey areas as to whether a patient has cover for Treatment Injury. Determination of cover is dependent on the individual patient and the circumstances of the treatment event. Examples include squeaking of a ceramic hip implant and premature loosening of an undersized, uncemented femoral stem in hip replacement.

Patient Entitlement

An example of a patient's entitlement as a result of Treatment Injury is illustrated in a case of a patient suffering popliteal artery injury secondary to Total Knee Replacement. The arterial injury resulted in below knee amputation. The patient's entitlements and the surgeon's accountability are summarised as follows:

- Free medical and hospital (public or private) treatment
- Free rehabilitation, nursing, physiotherapy, transport, home help, prosthetic fitting etc

- 80% weekly wages
- Lump sum payment \$30,000
- Sentinel event review – reportable to Ministry of Health whose focus is on issues of quality and safety
- Patient complaint reviewed by Health & Disability Commissioner
- If in breach, surgeon's practice will be subject to review with possible referral for disciplinary action
- Legal bar to damages claim.

Summary

No fault Treatment Injury provisions of the ACC Act provide early equitable compensation to the patient. There is low compensation for non-economic loss to the patient. The avoidance of costly litigation is seen as a social gain. For the practitioner the scheme results in lower medical defence premiums. The scheme has low administrative costs and to date has been seen as affordable to the country.

Acknowledgments:

- ACC Treatment Injury Centre Wellington
- Mr Bill Taine FRACS

Mr Denis Atkinson is an Orthopaedic Surgeon in full-time private practice in Hawke's Bay. Mr Atkinson is past Chair of the New Zealand Orthopaedic Association and current Chair of the Wakefield Health Consultant Liaison and Clinical Advisory Committee. For more information, please contact Mr Denis Atkinson, (06) 873 8008.

# New Sleep Laboratory at Bowen Hospital

Area: Sleep Unit, Bowen Hospital  
Article written by: Associate Professor Alister Neill, Sleep and Respiratory Physician and Dr Angela Campbell, Laboratory Manager and Senior Lecturer at Otago University.



After 14 years at Bowen Hospital, the WellSleep Investigation Centre, University of Otago, Wellington, has now been redeveloped into a state of the art sleep laboratory with more space and bedrooms allowing WellSleep to increase its patient throughput and keep wait lists to a minimum.

### What WellSleep offers

The new centre is equipped with the Compumedics Grael recording device, the world's first high definition polysomnography (PSG) amplifier. To assist clinicians to fully understand their patients' conditions, WellSleep has taken on board sophisticated technology enabling high resolution video and audio applications for time-linked and real-time laboratory monitoring. Bedrooms have been designed for comfort, with small touches

to create a more home like atmosphere. Each room has its own ensuite and black-out blinds to allow the performing of daytime studies.

WellSleep continues to offer a 'home' based service to those living within the Wellington area. This flexibility allows patients with special needs, variable sleep times and a preference for their own beds to access full polysomnography without the need to attend WellSleep.

### The team

WellSleep is directed by Associate Professor Alister Neill, Sleep and Respiratory Physician, who is responsible for the clinical management of the laboratory and patients. He is also head of the unit's research team and oversees the Advanced Trainee programme in Sleep Medicine. Dr Angela Campbell, is the laboratory's manager and is a Senior Lecturer at Otago University. Angela coordinates the day to day running of the laboratory, is involved in research and also runs the Postgraduate Diploma in Medical Technology endorsed in sleep technology and the new primary care paper in sleep management. The primary workforce at WellSleep consists of six registered clinical physiologists who provide the sleep study service and follow-up with patients. An administration assistant completes the team.

### Education

The education of health professionals regarding sleep disorders and sleep health is a major focus for WellSleep. WellSleep provides a venue for multi-disciplinary case discussion and continuing education. Fortnightly meetings bring together diverse expertise in Respiratory and Sleep Medicine, Physiology, Paediatrics and Oral Health (Dentist and Maxillofacial Surgeon). WellSleep is a Royal Australian College of Physicians accredited training site for an advanced training post in Sleep Medicine and Respiratory Failure. Staff provide teaching for undergraduate medical students.

Staff are also involved in the provision of a Postgraduate Diploma in Medical Technology for Clinical Physiologists wanting to work in the area of sleep medicine and from 2012 health professionals will be able to enroll in a distance taught paper looking at Healthy Lifestyles –

WellSleep continues to offer a 'home' based service to those living within the Wellington area

Sleep Management under the Department of General Practice and Primary Care, Otago University, Wellington. This paper addresses sleep disorders commonly associated with health risk factors and illnesses focusing on guidelines for primary/ integrated healthcare setting.

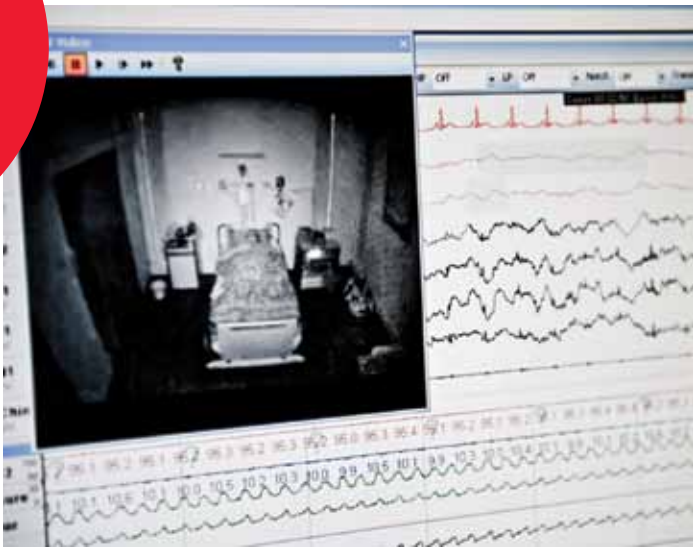
WellSleep has a nationally renowned research programme in adult and paediatric sleep and breathing providing a research environment for students completing PhD studies, Masters degrees, Advanced Trainees and summer research students.

### Research interests

One of WellSleep's current research interests focuses on patient determinants of positive airway pressure usage for the treatment of obstructive sleep apnoea. This research was presented by WellSleep staff at the Sixth World Sleep Congress in Kyoto during October 2011. Data shows the socio-economic status is an independent predictor of compliance with treatment. This was in contrast to other patient related factors including health literacy and self efficacy. Patient focus groups have revealed that the primary barrier to access to sleep services is the lack of knowledge of sleep disorders and sleep health in the community rather than any specifics of the local Wellington service.

For more information on any of the above, please contact WellSleep:  
E: [wellsleep@otago.ac.nz](mailto:wellsleep@otago.ac.nz)  
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Associate Professor Alister Neill (left) and Dr Angela Campbell (right).



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## Pilot Study – Volunteers Wanted

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### Surgery to Resolve Type 2 Diabetes

Wakefield Obesity Clinic is seeking 12 volunteers with Type 2 Diabetes, who are **overweight**, but not obese, and who are not yet taking insulin to help us with our research.



Gastric bypass surgery, when performed in severely obese individuals with Type 2 Diabetes, is known to resolve diabetes in over 80% of individuals. It is possible this could also occur if a similar operation is performed in non-obese diabetics. If you have interested patients with Type 2 Diabetes who are not taking

insulin, aged between 18 and 70 and have a BMI between 25 and 30, we would be pleased to hear from them.

Please contact Lele Ma'auga, Practice Manager, or Bridget Leppien, Research Nurse, on (04) 381 8110.

Further information can be found at [www.obesityclinic.co.nz](http://www.obesityclinic.co.nz)



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