Plain Language Statement - x-ray required
CENTRE FOR HEALTH, EXERCISE AND SPORTS MEDICINE
SCHOOL OF PHYSIOTHERAPY

Project: Optimising exercise outcomes for knee OA: The TARGET study.

Prof Kim Bennell (Responsible Researcher)
Tel: +61 3 8344 4135  Email: k.bennell@unimelb.edu.au |

Introduction
Thank you for your interest in participating in this research project. The following few pages will provide you with further information about the project, so that you can decide if you would like to take part in this research.
Please take the time to read this information carefully. You may ask questions about anything you don't understand or want to know more about.
Your participation is voluntary. If you don't wish to take part, you don't have to. If you begin participating, you can also stop at any time.

What is this research about?
Osteoarthritis of the knee is a common condition in adults. It affects the lining of the joints giving rise to pain and stiffness. Many patients experience progressive worsening of their symptoms as time goes by. It is known that exercise is beneficial in reducing pain and disability in people with knee osteoarthritis. However, research indicates that people who have higher body weights may respond differently and more favourable to certain types of knee exercise.
This project will specifically compare the effects of two different exercise programs for individuals with knee osteoarthritis who are overweight and evaluate if people respond differently to either of the exercise programs.

It will also investigate strategies aimed at helping people stick to a prescribed exercise programs in the long term, after contact with a physiotherapist has ceased.

This study will help develop treatment programs that better target the right type of exercise program to the right person and develop strategies to encourage people to adhere to their exercise program over time.

Who can participate?
We require people diagnosed with osteoarthritis on the inner aspect of their knee. You can participate in the study if you are aged over 50 years; have knee joint osteoarthritis (which has been diagnosed by X-ray); have had knee pain on most days for the past month, and are overweight.
You are not eligible if you have had knee joint surgery in the past six months; have had a knee or hip joint replacement or are on the waiting list for surgery; have participated in a regular exercise program in the past 6 months; have a history of severe hip or back trouble or unable to walk without a stick or frame.

What will I be asked to do?
Should you agree to participate you will be required to complete the study tasks below;

1) Screening to participate You eligibility to participate in the study will be assessed by;
a) Online and phone screening – where you will be asked several questions about your knee pain, your past medical history and your availability. You may already have undergone screening by the time you read this.

b) Consent – If online and phone screening indicates that you may be suitable to participate you will be sent a copy of this Plain Language Statement and a consent form (either by mail or email dependent on your preference). You will be required to read this information and complete the consent form if you wish to participate further in the research project.

c) X-ray screening – Finally, you will be asked to attend a radiology centre for a knee x-ray to determine if you are eligible for the study. These centres are located at the Epworth Hospital, Richmond, Blackburn South Radiology and Brunswick Diagnostic Imaging. You may attend the centre that is most convenient to you. The x-ray will take around 15 minutes and involves a small amount of radiation. There is no cost to you for this x-ray. If the results of your x-ray identify that you have osteoarthritis on the inner surface of your knee you will then be invited to participate in the study.

2) Baseline assessment. If you are deemed eligible for the study, you will undergo baseline testing in the department of Physiotherapy, which will take around 1 to 1.5 hours. You will be provided with car parking at no charge to yourself when you come for the tests. The measures taken at this test session will include:

   a) completion of questionnaires on a computer about your knee pain and disability, how you feel about your knee pain, your physical activity levels and your medications.

   b) two tests of your thigh and hip muscle strength. The maximal strength of your thigh muscle will be measured in sitting using a special machine which you are strapped into. You will be asked to push against an ankle pad as hard as you can a few times. Your hip muscles will also be measured in lying as you push into a device held by the examiner.

   c) assessment of your function. You will be asked to climb up and down 6 steps which will be timed with a stopwatch, you will be asked to stand up from a chair while you are timed and asked to walk 40m at a fast paced while timed. You will also be asked to perform an assessment of your balance.

You must report to the investigator any undue pain or discomfort during any of the testing procedures.

For the measurements at the University of Melbourne, you will be required to wear clothing you are able to exercise in. You may either bring your own or we can provide you with suitable shorts if required.

3) Study treatment – 5 x Physiotherapy sessions and a home exercise program over 12 weeks. After baseline assessment you will be allocated to receive one of the two exercise programs. There is a 50% chance of being allocated to either exercise program. Both exercise programs have been used in our previous research and are beneficial for reducing knee pain caused by osteoarthritis. Participants in both groups will then select a project physiotherapist of their choice from the list of trained study physiotherapists provided by the research team. You may choose to attend the location that is most convenient to you and you will have a range of appointment times to choose from. You will then attend your appointments with the physiotherapist where they will teach you the exercises for the program you have been allocated to and will monitor you and progress the exercises as you improve. You will be provided with exercise equipment to take home. You will see the physiotherapist to check and progress your exercises 5 times during the first 12 weeks of the study. It is very important that you attend all of the sessions and that you undertake the exercises the physiotherapist prescribes you at home, 4 times a week during this period.
4) **Follow-up testing.**
   a) **After the first 12 weeks of the study,** you will be asked to again attend The University of Melbourne for follow-up assessment. You will complete the questionnaires and undergo all the tests which you completed at baseline, this will take approximately 1-1.5 hours in total.

5) **You will then be required to perform the exercises at home for a further 6 months, 3 times per week.** You will be given a training diary where you can record how often you do your exercises and monitor your symptoms during this time. You may also receive text messages to help encourage you to continue your exercise regularly and you may be asked and expected to reply to these text messages regarding your exercise progress.

6) **Completion of the study.** At 36 weeks, the completion of the study, you will be asked to complete your final study questions, they will be the same questions you were asked at baseline and 12 weeks. You will not be required to complete any physical testing. You can complete the questions on a computer at home or can post a hard copy back to the study co-ordinator at The University of Melbourne.

**What costs are involved and what is being covered by the study?**

The study will cover the costs of parking at the Department of Physiotherapy for your testing sessions, the 5 physiotherapy exercise sessions and the required exercise equipment. At the completion of the study, you will be permitted to keep the exercise equipment provided to you. The only costs you are required to cover are your transportation costs to the university for your two assessments, transportation costs to the physiotherapist and any costs associated with receiving or replying to possible text message reminders during the study.

**What are the possible risks?**

Participation in this trial involves exposure to a small amount of radiation (if you have not already had your own knee x-ray in the past 12 months). This arises from the knee X-ray. As part of everyday living, everyone is exposed to naturally occurring background radiation and receives a dose of about 2 millisievert (mSv) each year. The additional effective dose you will receive from entering this trial is approximately 0.04 mSv. At this dose level, no harmful effects of radiation have been demonstrated as any effect is too small to measure. Studies suggest any risk is minimal.

You may experience increased knee or hip pain while you are performing the strength measures in the laboratory or you may experience increased knee or hip pain the next day. You should notify the tester if this occurs. The investigators are all trained in first aid and the Department of Physiotherapy has emergency procedures in place. Therefore if any medical event arises during the testing, the investigators will be able to deal appropriately with it.

It is also possible that you may experience an increase in knee, hip or back pain with the exercises, especially at the beginning of the program. To minimise this, you will be given clear instructions by the physiotherapist to gradually increase your exercises. You should telephone the physiotherapist if your pain increases. There is also the slight possibility of falling and perhaps injuring yourself if you are prescribed balance exercises. You will be asked to perform these exercises near a wall or sturdy object.

**Do I have to take part?**

No. Participation is completely voluntary. If you do not wish to take part you are under no obligation to do so. Also, if you decide to take part but later change your mind, you are free to withdraw from the project at any stage. You may also withdraw any unprocessed data previously supplied by you. Your
decision about whether or not to participate or to continue in the study will not affect your future medical care in any way.

**Will I hear about the results of this project?**
Once we have completed testing all participants and analysed the data, we can send you a summary of the overall study results if you wish. Depending on when you enrol in the study, the results may not be available for several years after you finish your measurements as it is anticipated that the study will take approximately three years to complete.

**What will happen to information about me?**
Your details will be kept confidential. The anonymity of your participation is assured by our procedure, in which a code number and not your name will identify you. No findings that could identify you will be published and access to individual results is restricted to the investigators. Coded data will be stored for 15 years. All data and results will be handled in a strictly confidential manner, under guidelines set out by the National Health and Medical Research Council. The chief investigator is responsible for maintaining this confidentiality. This project is subject to the requirements of the Human Research Ethics Committee of the University of Melbourne. However, you must be aware that there are legal limitations to data confidentiality.

**Where can I get further information?**
You should ask for any information you want. If you would like more information about the study, or if there is any matter about it that concerns you, either now or in the future, do not hesitate to ask one of the researchers. Before deciding whether or not to take part you may wish to discuss the matter with a relative or friend or with your local doctor. You should feel free to do this.

If you would like more information about the project, please contact the researchers; Professor Kim Bennell 03 8344 4135, or Study co-ordinator Sarah SchwartzAlex Kimp 03 8344 84534109

**Who can I contact if I have any concerns about the project?**
This research project has been approved by the Human Research Ethics Committee of The University of Melbourne. If you have any concerns or complaints about the conduct of this research project, which you do not wish to discuss with the research team, you should contact the Manager, Human Research Ethics, Office for Research Ethics and Integrity, University of Melbourne, VIC 3010. Tel: +61 3 8344 2073 or Email: HumanEthics-complaints@unimelb.edu.au. All complaints will be treated confidentially. In any correspondence please provide the name of the research team or the name or ethics ID number of the research project.
Consent Form
CENTRE FOR HEALTH, EXERCISE AND SPORTS MEDICINE
SCHOOL OF PHYSIOTHERAPY

Project:
Optimising exercise outcomes for knee OA: The TARGET study.

Primary Researcher: Prof Kim Bennell

Additional Researchers: Prof Rana Hinman, Mr Tim Wrigley, Ms Rachel Nelligan, Mr Ben Metcalf, Prof Paul Hodges, Dr Jessica Kasza, Mr Alexander Kimp, Ms Sarah Schwartz

1. I consent to participate in this project, the details of which have been explained to me, and I have been provided with a written plain language statement to keep.

2. I understand that after I sign and return this consent form it will be retained by the researcher.

3. I understand what my participation will involve and I agree that the researcher may use the results as described in the plain language statement.

4. I acknowledge that:
   (a) I have been informed that my participation is voluntary and I am free to withdraw from the project at any time without explanation or prejudice and to withdraw any unprocessed data I have provided;
   (b) the project is for the purpose of research;
   (c) I have been informed that the confidentiality of the information I provide will be safeguarded subject to any legal requirements;
   (d) I have been informed that a copy of the research findings will be forwarded to me, should I wish.

5. The data I contribute to this study may be used to address other research questions relating to knee osteoarthritis.

   I consent to participating in the study □ yes □ no (please tick)

   I wish to receive a copy of the summary project report on research findings at the conclusion of the study □ yes □ no (please tick)

I, _______________________________ consent to participate in the above project.

Signature _______________________________ Date ___________
The TARGET study
Optimising exercise outcomes for knee OA

Who is running the trial?
The research team is led by Professor Kim Bennell at the Centre for Health, Exercise and Sports Medicine (CHESM) at the Department of Physiotherapy, in the School of Health Sciences at the University of Melbourne.

What is the purpose of the study?
It is known that exercise is beneficial in reducing pain and disability in people with knee osteoarthritis. However, research indicates that people who have higher body weights may respond differently and more favourable to certain types of knee exercise. This project will specifically compare the effects of two different exercise programs for individuals with knee osteoarthritis who have higher body weights and evaluate if they respond differently to either of the exercise programs.

The study will also investigate strategies aimed at helping people stick to a prescribed exercise program in the long term, after contact with a physiotherapist has ceased.

Who can participate?
You can participate in the study if you:

- are aged over 50 years,
- have knee osteoarthritis on x-ray (we can organize an x-ray if you live in the Melbourne area)
- currently have knee pain on most days
- and are happy to receive correspondence from the research team via mobile phone text message if required.

You are not eligible if you:

- have had an injection into your knee or knee surgery in the past 6 months,
- plan to have surgery within the next 9 months,
- you have a systemic arthritic condition, like rheumatoid arthritis,
- have had a knee or hip joint replacement or high tibial osteotomy in the past,
- have other muscular, joint or neuromuscular condition that affects your walking,

What will you have to do?
Briefly, this project involves an initial phone screening assessment and a knee X-ray to determine whether you are eligible to participate. If you are ineligible at any of these stages we will provide you with a full explanation for why you are excluded from the study.
X-ray screening
If you have not had x-rays of your knee in the past 12 months, you will firstly be asked to attend a radiology centre for a knee x-ray to determine if you are eligible for the study. These centres are located at the Epworth Hospital Richmond, Blackburn South Radiology and Brunswick Diagnostic Imaging. The x-ray will take around 15 minutes and involves a small amount of radiation. There is no cost to you for this x-ray.

If you have a suitable x-ray of your knee taken within the past 12 months, the researchers will send you a stamped addressed envelope to send the x-rays in to the University for an assessment. Once this has been done the researchers will send the x-rays back to you.

Laboratory assessment
If you are deemed suitable to take part, you will then attend the University of Melbourne, Department of Physiotherapy to undergo the baseline assessment, which will take around 1.5. It will involve completing a set of questionnaires which ask about your personal details, knee pain and function, your medications usage, previous knee treatments, physical activity levels and quality of life. We will also conduct a number of physical tests, including your ability to perform certain tasks as fast as you can and your muscle strength.
After completing the assessment, you will be able to choose the most convenient of our study physiotherapy clinics to attend for 5 exercise visits over a 12 week period. For these visits you will be allocated to one of the two exercise groups. You have a 50% chance of being allocated to either group.

Over the 5 exercise visits your physiotherapists will guide you through the exercise program. You will be provided with any exercise equipment required to take home, as well as log books to complete at home to record the number of times you perform the exercises.

12 week Lab re-assessment
Twelve weeks after the initial assessment, you will be asked to return to the University of Melbourne to undergo a re-assessment. You will be asked to complete a questionnaire booklet and undergo the physical function and strength assessments similar to what you underwent at the initial baseline assessment. We will also ask you to rate your overall change in your knee since the beginning of the study.

36 week Lab re-assessment
Following the 12 week re-assessment, you will be asked to continue performing the home exercises 3 times per week for the next 24 weeks. Following this period, we will send you a questionnaire either via mail to your home address or via email. The questions will be the same as you previously completed at the baseline and 12 week assessments. You will not need to visit the University of Melbourne for this assessment and can complete the questions at home.

Will my details be kept confidential?
No findings that could identify you will be published. All data and results will be handled in a strictly confidential manner. This project is subject to the requirements of the Human Research Ethics Committee of the University of Melbourne (HREC No. 1544919.1).

What to do next?
If you would like to participate in this project, or to find out more details, please click NEXT at the bottom of the page to register your interest. Or you can phone Rachel Nelligan on (03) 8344 9411.

About the researchers:

Prof Kim Bennell is an experienced physiotherapist and Director of the Centre for Health, Exercise and Sports Medicine in the Department of Physiotherapy at The University of Melbourne.

Prof Rana Hinman is an experienced physiotherapist and Associate Professor in the Department of Physiotherapy at The University of Melbourne.

Mr Tim Wrigley is a biomechanist and Director of the Movement Laboratories in the Department of Physiotherapy at The University of Melbourne.

Miss Rachel Nelligan is a research physiotherapist in the Centre for Health, Exercise and Sports Medicine, University of Melbourne.
Mr Ben Metcalf is a research scientist, experienced in the co-ordination of physiotherapy trials for knee osteoarthritis.

Prof Paul Hodges is an experienced physiotherapist in the School of Rehabilitation Sciences, University of Queensland
Register your interest by completing the initial eligibility criteria

**Screen 1:** *all answers within these fields are required*

Enter your first and last name:
Enter your gender:
Enter your suburb:
Enter your email address:
Enter your preferred daytime phone number:
Enter an alternative contact phone number (optional):
How did you find out about the study?

1. Are you aged over 50?  
   (YES) ☐  (NO) ☐

2. Can you commit 9 months to the study?  
   (YES) ☐  (NO) ☐

3. Are you able to attend two assessments at the University of Melbourne, Parkville campus, 3 months apart?  
   (YES) ☐  (NO) ☐

4. Have you had knee pain on most days of the past month?  
   (YES) ☐  (NO) ☐

5. Have you had knee pain for 3 months or more?  

6. What is your height?  
   cm

7. What is your weight?  
   kgs

8. Please rate your average level of overall pain out of 10 for the past week, where 0 = no pain and 10 = worst pain possible?  
   [0] [1] [2] [3] [4] [5] [6] [7] [8] [9] [10]  
   no pain  worst pain possible

9. Which study physiotherapist location listed below would you be able to access for 5 knee exercise sessions in the next 3 months?
a) Pivot Physio, 1 Aquatic Drive, Maribyrnong 3032
b) Australian HealthCare Network, 1185 Main Rd Eltham 3095
c) Physioworks, 518 Camberwell Road, Camberwell 3124
d) Waverley Park Physiotherapy Centre, 439 Police Road, Mulgrave VIC 3170
e) City Baths, 420 Swanston St, Melbourne 3000
f) Physioworks, 1 Cranbourne Place, Cranbourne 3977
g) Physica, 25 Wantirna Rd, Ringwood 3134
h) None suit me

**Screen 2:**
If answer NO to Q1-4, BMI calculation from Q 5 and 6 < 30, response to Q7 is < 4, or response to Q8 is h) then the following message will be shown:

**Thank you for your interest in the study**

Your answers to the questions indicate that at this point in time you are not suitable to participate in this particular study.

However, our research center has a number of other studies that you may like to know more about.

Are you happy for us to contact you about other studies in the future that we think you may be suitable for? If so, then please check the following box: ☐

If you would like to read more about our other studies, click here.
**Screen 3:**

If answers are all **YES**, BMI calculation from Q.4 and 5 is ≥ 30 and answer to Q4 is ≥ 4, then the following questions will also be asked:

<table>
<thead>
<tr>
<th>Please continue to answer the following questions:</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. Have you had a knee or hip replacement?</td>
</tr>
<tr>
<td>(YES) ☐ (NO) ☐</td>
</tr>
<tr>
<td>11. Have you had any knee surgery including an arthroscopy or any injections on your study knee in the past 6 months?</td>
</tr>
<tr>
<td>(YES) ☐ (NO) ☐</td>
</tr>
<tr>
<td>12. Are you on the waiting list for or are you planning any leg or back surgery or injections within the next 9 months?</td>
</tr>
<tr>
<td>(YES) ☐ (NO) ☐</td>
</tr>
<tr>
<td>13. Are you currently undertaking exercise for your knee that has been prescribed by a health professional in the past 6 months?</td>
</tr>
<tr>
<td>(YES) ☐ (NO) ☐</td>
</tr>
<tr>
<td>14. Have you ever had a blood test that resulted in a diagnosis of Rheumatoid Arthritis?</td>
</tr>
<tr>
<td>(YES) ☐ (NO) ☐</td>
</tr>
<tr>
<td>15. Do you suffer from another condition (such as stroke, Multiple sclerosis (MS), polio, a neuropathy, peripheral nerve disease or Parkinson’s disease) that affects your legs and your ability to exercise safely?</td>
</tr>
<tr>
<td>(YES) ☐ (NO) ☐</td>
</tr>
</tbody>
</table>

Submit
Screen 4:
If answer YES to any question, then the following message will be shown:

**Thank you for your interest in the study**

Your answers to the questions indicate that at this point in time you are not suitable to participate in this particular study.

However, our Research Centre has a number of other studies that you may like to know more about.

Are you happy for us to contact you about other studies in the future that we think you may be suitable for? If so, then please check the following box:  

If you would like to read more about our other studies, [click here.](#)

Screen 5:
If answers are all NO, then the following questions will also be asked:

Final Screen

**Thank you for answering these questions and your interest in the study.**

A researcher will contact you by phone as soon as possible and will indicate if you are suitable for the study.
TARGET Study Phone Screening Form

Date of Phone Screening: _____/_____/_____  Screened by: __________________________

Name: ___________________________  D.O.B.: /___/_____
Street: ___________________________  Sex:  Male  /  Female
Suburb: ___________________________  Post Code: _____

Daytime phone: ________________________ (home / work / mobile)
Alternative phone: ________________________ (home / work / mobile)
Email: _____________________________ @ ___________________________

How did you find out about study: _______________________________________

circle Yes or No (Bold = pass)

<table>
<thead>
<tr>
<th>Are you aged over 50?</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is your height, ___________ and your weight? ___________</td>
<td></td>
<td></td>
</tr>
<tr>
<td>•  Is the BMI over 30?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Knee Symptoms</th>
<th>Right Knee</th>
<th>Left Knee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you have pain in both knees or one knee? (if bilateral circle Right &amp; Left)</td>
<td>Right</td>
<td>Left</td>
</tr>
<tr>
<td>If pain in both knees, which is the most painful knee at the moment? (this will be the Study Knee)</td>
<td>Right</td>
<td>Left</td>
</tr>
<tr>
<td>Please rate your average level of knee pain out of 10 for the past week, where 0 = no pain and 10 = worst pain possible?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>•  Is this 4 out of 10 or greater?</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Study commitment and appointments</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are you able to commit the next 9 months to the study?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you understand that you would be allocated to receive one of two different exercise programs in this study?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Do you have a mobile phone and would you be willing to receive regular text message correspondence from the study team over the next 9 months if required?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Have you ever had an X-ray taken of your knee?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>If Yes, was there a diagnosis of osteoarthritis? (If No in a recent x-ray, then exclude patient)</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Have you had an X-ray taken of your knee in the last 12 months?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(If Yes, is it weight bearing ’standing up’?)</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Are you able to attend an X-ray appointment?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Richmond (Fri 8:15-10:15am), Blackburn South (Wed 10-11am), Brunswick (Mon-Wed 10:30-12)</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Are you able to attend 2 assessment appointments at the University of Melbourne 3 months apart? (Assessment will last up to 1.5 hours – baseline and follow-up)</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Are you still able to access one of the study physiotherapist for 5 exercise sessions in the coming 3 months?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Confirm physiotherapist preference from online screen and provide available times)</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Which physiotherapy clinic is preferred? __________________________</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Exclusion Criteria

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have you participated in specific knee exercise in past 6 months or planning to start exercise in next 9 months?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have you ever had a fracture or malignancy in your knee?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Details:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have you had a knee or hip replacement or high tibial osteotomy?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Details:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have you had any knee surgery including arthroscopies or had any knee injections in the past 6 months or plan to in the next 9 months?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Details:</td>
<td></td>
<td></td>
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<tr>
<td>Have you taken any oral corticosteroids in the past month?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Details:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you have any other health problems, including back pain or other joint pain, that affects your walking or impacts upon your ability to exercise, apart from your knee pain?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>If Yes, did you seek treatment from a health professional and did the pain limit your ability to perform daily activities such as walking for more than a week?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Details:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you have any heart conditions - do you take heart medications, have you had any heart surgery, do you have high or low blood pressure, do you suffer from breathlessness, dizziness or fainting, do you experience any chest pain or discomfort with exercise or physical exertion?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you have any inflammatory arthritic conditions (eg. rheumatoid arthritis, fibromyalgia) or osteonecrosis, Paget’s disease or haemophilia?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Is the subject appropriate to proceed?

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>If YES, which knee is suitable?</td>
<td>RIGHT</td>
</tr>
<tr>
<td>If NO - although you are not eligible for the study at the moment, are you happy for us to contact you to see if you are eligible for this study at a later date?</td>
<td>Yes</td>
</tr>
<tr>
<td>If yes, at what date should the follow-up phone call be after?</td>
<td>/</td>
</tr>
<tr>
<td>If NO - although you are not eligible for the study, are you happy for us to contact you about other studies in the future that we think you may be suitable for?</td>
<td>Yes</td>
</tr>
</tbody>
</table>
TARGET Study Phone Screening Form

**RESULTS:**
- Pass [ ]
- Fail [ ]
- If pass, KL Grade: 2 [ ] 3 [ ] 4 [ ]

**STAGE TWO – X-ray results and lab booking**
- Pass or Fail results explained [ ]
- Confirm that they are still happy to participate for 9 months [ ]

Please rate your average level of knee pain out of 10 for the past week overall, where 0 = no pain and 10 = worst pain possible?

/10

*If less than 4, explain that pain is too low to start at the moment, and we will phone you back in one month to follow up on your pain level.*

If 4 or more, book a time for the baseline lab assessment.

Date: / /  
Time:

**STAGE THREE – confirm lab appointment and check pain score on the day before testing**
- Check that mail has been received regarding appointment [ ]
- Confirm that they are still happy to participate [ ]

Please rate your average level of knee pain out of 10 for the past week overall, where 0 = no pain and 10 = worst pain possible?

/10

*If less than 4, explain that pain is too low to start at the moment, and we will phone you back in one month to follow up on your pain level.*

Participant will be coming in by:
- Car, and will use the carpark [ ]
- Public transport or other means [ ]
- Remind them they may be required to take exercise equipment home [ ]
TARGET Study Radiographic Screening Form

Date of radiographic screening: ___/___/___
Name: ________________________________
Gender:  ☐ Male  ☐ Female
Most symptomatic side:  ☐ Right  ☐ Left

**KL grade** (circle one)

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
</table>

Less than or equal to 2? -> EXCLUDED

**OARSI Atlas Grade – Osteophytes** (circle one per line)

- Medial Femoral Osteophytes: 0 1 2 3
- Medial Tibial Osteophytes: 0 1 2 3
- Lateral Femoral Osteophytes: 0 1 2 3
- Lateral Tibial Osteophytes: 0 1 2 3

**OARSI Atlas Grade – Narrowing** (circle one per line)

- Medial Tibiofemoral Narrowing: 0 1 2 3
- Lateral Tibiofemoral Narrowing: 0 1 2 3

Is the Medial TFJ Narrowing greater than the Lateral TFJ Narrowing? (circle one)

YES  -> INCLUDED

NO  -> EXCLUDED
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Subject Code: T A R G E T

Part 1 – Numeric Rating Scales

The following 2 questions ask you to rate the pain, on a scale from 0 (no pain) to 10 (worst pain possible) caused by your study knee. This is done by ticking a number on the scale. Please do not tick two numbers, you must choose a whole number. For example, in question 1, the closer you place the tick to 0, the less pain you feel in your study hip on average. The closer you place the tick to 10, the more pain you feel.

1. Tick the number which indicates the **average amount of pain felt over the PAST WEEK** in your study knee, overall.

   0 1 2 3 4 5 6 7 8 9 10
   no pain worst pain possible

2. Tick the number which indicates the **average amount of pain felt over the PAST WEEK** in your study knee, when you are walking.

   0 1 2 3 4 5 6 7 8 9 10
   no pain worst pain possible
Part 2 - About yourself

1. What is your date of birth? (please write your answer)

   dd / mm / yyyy

2. What is your employment status? (please tick one box only)
   - Work full-time
   - Work part-time
   - Unable to work at the moment
   - Retired
   - Unemployed
   - Homemaker
   - Student
# Part 3 – Previous Treatment

Have you tried any of the following in the **LAST 6 MONTHS** specifically for your knee pain?  
*(please circle one number on each line)*

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Massage</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Manual therapy</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Walking stick, cane or other object to help with walking</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Ultrasound</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Low Level Laser Therapy (LLLT)</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Transcutaneous Electrical Nerve Stimulation (TENS)</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Orthotics, arch supports or wedging in your shoes</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Knee braces</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Heat/cold treatment</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Land-based exercises (eg. strengthening, aerobic or stretching exercises)</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Injections (eg. cortisone, Synvisc, platelet-rich plasma)</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Hydrotherapy (eg warm water exercises)</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Acupuncture</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Arthroscopic surgery</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>High tibial osteotomy surgery</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Ligament reconstructive surgery</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
Part 4 - Problems in other joints

Do you suffer from any problems (e.g. pain, aching, discomfort or stiffness) around the following joints in your body? *(Please put a cross in as many boxes as apply to you)*

- [ ] Hand
- [ ] Neck
- [ ] Back
- [ ] Right Hip
- [ ] Left Hip
- [ ] Right Foot/Ankle
- [ ] Left Foot/Ankle
- [ ] Right Shoulder
- [ ] Left Shoulder
- [ ] I don’t have problems in any of these joints

Part 5 – Medication

Have you taken any of the following medications or supplements at least once per week over the LAST 6 MONTHS specifically for your knee pain?

*(please circle one number on each line)*

<table>
<thead>
<tr>
<th>Medication</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anti-inflammatory tablets or capsules (eg. Voltaren, Nurofen, Mobic)</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Anti-inflammatory tablets or capsules – cox-2 inhibitors (eg. Celebrex, Vioxx)</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Analgesia/Paracetamol combinations (e.g. Panadol, Panadeine Forte, Panadol Osteo, Tramadol)</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Topical anti-inflammatory gels or creams (e.g. Voltaren emugel)</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Oral Corticosteroids (eg. Dexamethasone, Prednisolone)</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Oral Opioids (e.g. oxycodine, morphine, ms-contin, oxycontin, kapanol)</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
Part 6 – Knee Injury and Osteoarthritis Outcome Score (KOOS)

Instructions

This survey asks for your view about your knee. This information will help us keep track of how you feel about your knee and how well you are able to do your usual activities.

Answer every question by ticking the appropriate box, only one box for each question. If you are unsure about how to answer a question, please give the best answer you can.

Pain

P1. How often do you experience knee pain?

Never    Monthly    Weekly    Daily    Always
☐        ☐          ☐        ☐        ☐

What amount of knee pain have you experienced the LAST WEEK during the following activities?

P2. Twisting/pivoting on your knee

None    Mild    Moderate    Severe    Extreme
☐        ☐          ☐        ☐        ☐

P3. Straightening knee fully

None    Mild    Moderate    Severe    Extreme
☐        ☐          ☐        ☐        ☐

P4. Bending knee fully

None    Mild    Moderate    Severe    Extreme
☐        ☐          ☐        ☐        ☐

P5. Walking on flat surfaces

None    Mild    Moderate    Severe    Extreme
☐        ☐          ☐        ☐        ☐

P6. Going up or down stairs

None    Mild    Moderate    Severe    Extreme
☐        ☐          ☐        ☐        ☐

P7. At night while in bed

None    Mild    Moderate    Severe    Extreme
☐        ☐          ☐        ☐        ☐

P8. Sitting or lying

None    Mild    Moderate    Severe    Extreme
☐        ☐          ☐        ☐        ☐

P9. Standing upright

None    Mild    Moderate    Severe    Extreme
☐        ☐          ☐        ☐        ☐
**Symptoms**

These questions should be answered thinking of your knee symptoms during the LAST WEEK.

<table>
<thead>
<tr>
<th>S1.</th>
<th>Do you have swelling in your knee?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>Rarely</td>
</tr>
<tr>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>S2.</th>
<th>Do you feel grinding, hear clicking or any other type of noise when your knee moves?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>Rarely</td>
</tr>
<tr>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>S3.</th>
<th>Does your knee catch or hang up when moving?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>Rarely</td>
</tr>
<tr>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>S4.</th>
<th>Can you straighten your knee fully?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td>Often</td>
</tr>
<tr>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>S5.</th>
<th>Can you bend your knee fully?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td>Often</td>
</tr>
<tr>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

**Stiffness**

The following questions concern the amount of joint stiffness you have experienced during the LAST WEEK in your knee. Stiffness is a sensation of restriction or slowness in the ease with which you move your knee joint.

<table>
<thead>
<tr>
<th>S6.</th>
<th>How severe is your knee stiffness after first wakening in the morning?</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>Mild</td>
</tr>
<tr>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>S7.</th>
<th>How severe is your knee stiffness after sitting, lying or resting later in the day?</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>Mild</td>
</tr>
<tr>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
**Function, daily living**

The following questions concern your physical function. By this we mean your ability to move around and to look after yourself. For each of the following activities please indicate the degree of difficulty you have experienced in the LAST WEEK due to your knee.

<table>
<thead>
<tr>
<th></th>
<th>Activity</th>
<th>None</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
<th>Extreme</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>Descending stairs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A2</td>
<td>Ascending stairs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A3</td>
<td>Rising from sitting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A4</td>
<td>Standing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A5</td>
<td>Bending to floor/pick up object</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A6</td>
<td>Walking on flat surface</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A7</td>
<td>Getting in/out of car</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A8</td>
<td>Going shopping</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A9</td>
<td>Putting on socks/stockings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A10</td>
<td>Rising from bed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A11</td>
<td>Taking off socks/stockings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A12</td>
<td>Lying in bed (turning over, maintaining knee position)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
A13. Getting in/out of bath
- None
- Mild
- Moderate
- Severe
- Extreme

A14. Sitting
- None
- Mild
- Moderate
- Severe
- Extreme

A15. Getting on/off toilet
- None
- Mild
- Moderate
- Severe
- Extreme

A16. Heavy domestic duties (scrubbing floors, shovelling)
- None
- Mild
- Moderate
- Severe
- Extreme

A17. Light domestic duties (cooking, dusting)
- None
- Mild
- Moderate
- Severe
- Extreme

**Section D - Sport and recreation.**

What difficulty have you experienced during the LAST WEEK?...

Sp1. Squatting
- None
- Mild
- Moderate
- Severe
- Extreme

Sp2. Running
- None
- Mild
- Moderate
- Severe
- Extreme

Sp3. Jumping
- None
- Mild
- Moderate
- Severe
- Extreme

Sp4. Turning/twisting on your injured knee
- None
- Mild
- Moderate
- Severe
- Extreme

Sp5. Kneeling
- None
- Mild
- Moderate
- Severe
- Extreme
Section E – knee related quality of life.

How much has your injury affected your life?

Q1. How often are you aware of your knee problems?
   Never ☐   Monthly ☐   Weekly ☐   Daily ☐   Always ☐

Q2. Have you modified your lifestyle to avoid potentially damaging activities to your knee?
   Not at all ☐   Mildly ☐   Moderately ☐   Severely ☐   Totally ☐

Q3. How troubled are you with lack of confidence in your knee?
   Not at all ☐   Mildly ☐   Moderately ☐   Severely ☐   Extremely ☐

Q4. In general, how much difficulty do you have with your knee?
   None ☐   Mild ☐   Moderate ☐   Severe ☐   Extreme ☐
## Part 7 – Physical activity scale for the elderly (PASE)

### INSTRUCTIONS

Please complete this questionnaire by either circling the correct response or filling in the blanks. Here is an example:

During the past 7 days, how often have you seen the sun?

- [0] NEVER
- [1] SELDOM (1-2 days)
- [2] SOMETIMES (3-4 days)
- [3] OFTEN (5-7 days)

Answer all items as accurately as possible. All information is strictly confidential.

### LEISURE TIME ACTIVITY

1. Over the **PAST 7 DAYS**, how often did you participate in sitting activities such as reading, watching TV or doing handicrafts?

   - [0] NEVER ➔ **GO TO QUESTION 2.**
   - [1] SELDOM (1-2 days)
   - [2] SOMETIMES (3-4 days)
   - [3] OFTEN (5-7 days)

   1a. What were these activities?  
       ______________________________________

   1b. On the average, how many hours did you engage in these sitting activities?

       - [1] LESS THAN 1 HOUR
       - [2] 1 BUT LESS THAN 2 HOURS
       - [3] 2-4 HOURS
       - [4] MORE THAN 4 HOURS
2. Over the **PAST 7 DAYS**, how often did you take a walk outside your home or yard for any reason? For example, for fun or exercise, walking to work, walking the dog etc?

   [0] NEVER → **GO TO QUESTION 3.**
   [1] SELDOM (1-2 days) →
   [2] SOMETIMES (3-4 days) →
   [3] OFTEN (5-7 days) →

   2a. On the average, how many hours per day did you spend walking?

      [1] LESS THAN 1 HOUR
      [2] 1 BUT LESS THAN 2 HOURS
      [3] 2-4 HOURS
      [4] MORE THAN 4 HOURS

3. Over the **PAST 7 DAYS**, how often did you engage in light sport or recreational activities such as bowling, golf with a cart, fishing from a boat or pier or other similar activities?

   [0] NEVER → **GO TO QUESTION 4.**
   [1] SELDOM (1-2 days) →
   [2] SOMETIMES (3-4 days) →
   [3] OFTEN (5-7 days) →

   3a. What were these activities?

   ____________________________

   3b. On the average, how many hours per day did you engage in these light sport or recreational activities?

      [1] LESS THAN 1 HOUR
      [2] 1 BUT LESS THAN 2 HOURS
      [3] 2-4 HOURS
      [4] MORE THAN 4 HOURS
4. Over the **PAST 7 DAYS**, how often did you engage in moderate sport and recreational activities such as doubles tennis, ballroom dancing, golf without a cart, softball or other similar activities?

- [0] NEVER
- [1] SELDOM (1-2 days)
- [2] SOMETIMES (3-4 days)
- [3] OFTEN (5-7 days)

**GO TO QUESTION 5.**

4a. What were these activities?

________________________________________

4b. On the average, how many hours per day did you engage in these moderate sport or recreational activities?

- [1] LESS THAN 1 HOUR
- [2] 1 BUT LESS THAN 2 HOURS
- [3] 2-4 HOURS
- [4] MORE THAN 4 HOURS

GO TO QUESTION 5.

5. Over the **PAST 7 DAYS**, how often did you engage in strenuous sport and recreational activities such as jogging, swimming, cycling, singles tennis, aerobic dance, skiing (downhill or cross-country) or other similar activities?

- [0] NEVER
- [1] SELDOM (1-2 days)
- [2] SOMETIMES (3-4 days)
- [3] OFTEN (5-7 days)

**GO TO QUESTION 6.**

5a. What were these activities?

________________________________________

5b. On the average, how many hours per day did you engage in these strenuous sport or recreational activities?

- [1] LESS THAN 1 HOUR
- [2] 1 BUT LESS THAN 2 HOURS
- [3] 2-4 HOURS
- [4] MORE THAN 4 HOURS
6. Over the **PAST 7 DAYS**, how often did you do any exercises specifically to increase muscle strength and endurance, such as lifting weights or pushups etc?

   [0] NEVER  
   [1] SELDOM (1-2 days)  
   [2] SOMETIMES (3-4 days)  
   [3] OFTEN (5-7 days)  

   **GO TO QUESTION 7.**

6a. What were these activities?

   __________________________________________________________

6b. On the average, how many hours per day did you engage in exercises to increase muscle strength and endurance?

   [1] LESS THAN 1 HOUR  
   [2] 1 BUT LESS THAN 2 HOURS  
   [3] 2-4 HOURS  
   [4] MORE THAN 4 HOURS

**HOUSEHOLD ACTIVITY**

7. During the **PAST 7 DAYS**, have you done any light housework, such as dusting or washing dishes?

   [1] NO  
   [2] YES

8. During the **PAST 7 DAYS**, have you done any heavy housework or chores, such as vacuuming, scrubbing floors, washing windows?

   [1] NO  
   [2] YES
9. During the **PAST 7 DAYS**, did you engage in any of the following activities?  
   Please circle YES or NO for each item.

<table>
<thead>
<tr>
<th>Activity</th>
<th>NO</th>
<th>YES</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Home repairs like painting, wallpapering, electrical work etc</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>b. Lawn work or yard care, including raking, wood chopping, etc</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>c. Outdoor gardening</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>d. Caring for another person, such as children, dependent spouse or another adult</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
**WORK-RELATED ACTIVITY**

10. **During the PAST 7 DAYS**, did you work for pay or as a volunteer?


10a. How many hours per week did you work for pay and/or as a volunteer?

__________________________ HOURS per week

10b. Which of the following categories best describes the amount of physical activity required on your job and/or volunteer work?

- [1] Mainly sitting with slight arm movements  
  (Examples: office worker, watchmaker, seated assembly line worker, bus driver etc)

- [2] Sitting or standing with some walking  
  (Examples: cashier, general office worker, light tool and machinery worker etc)

- [3] Walking with some handling of material generally weighing less than 50 pounds  
  (Examples: mailman, waiter/waitress, construction worker, heavy tool and machinery worker etc)

- [4] Walking and heavy manual work, often requiring handling of materials weighing over 50 pounds  
  (Examples: lumberjack, stone mason, farm or general labourer etc)
Part 8 - Quality of life (AQoL II)

For each of the following questions, please TICK ONE alternative that best describes your situation during the LAST WEEK.

Q1  How much help do I need with household tasks (eg. Preparing food, cleaning the house or gardening):
- [ ] I can do all these tasks very quickly and efficiently without any help
- [ ] I can do these tasks relatively easily without help
- [ ] I can do these tasks only very slowly without help
- [ ] I cannot do most of these tasks unless I have help
- [ ] I can do none of these tasks by myself

Q2  Thinking about how easy or difficult it is for you to get around by yourself outside your house (eg. shopping, visiting):
- [ ] Getting around is enjoyable and easy
- [ ] I have no difficulty getting around outside my house
- [ ] A little difficulty
- [ ] Moderate difficulty
- [ ] A lot of difficulty
- [ ] I cannot get around unless somebody is there to help me

Q3  Thinking about how well you can walk.
- [ ] I find walking or running very easy
- [ ] I have no real difficulty with walking or running
- [ ] I find walking or running slightly difficult. I cannot run to catch a bus or train, I find walking uphill difficult
- [ ] Walking is difficult for me. I walk short distances only, I use a walking stick to walk with, I have difficulty walking up stairs
- [ ] I have great difficulty walking. I cannot walk without a walking stick or frame, or someone to help me
- [ ] I am bedridden
Q4 Thinking about washing yourself, toileting, dressing, eating or looking after my appearance:

☐ These tasks are very easy for me
☐ I have no real difficulty in carrying out these tasks
☐ I find some of these tasks difficult, but I manage to do them on my own
☐ Many of these tasks are difficult, and I need help to do them
☐ I cannot do these tasks by myself at all

Q5 Your close and intimate relationships (including any sexual relationships) make you:

☐ Very happy
☐ Generally happy
☐ Neither happy nor unhappy
☐ Generally unhappy
☐ Very unhappy

Q6 Thinking about your health and your relationship with your family:

☐ My role in the family is unaffected by my health
☐ There are some parts of my family role I cannot carry out
☐ There are many parts of my family role I cannot carry out
☐ I cannot carry out any part of my family role

Q7 Thinking about your health and your role in your community (that is to say neighbourhood, sporting, work, church or cultural groups):

☐ My role in the community is unaffected by my health
☐ There are some parts of my community role I cannot carry out
☐ There are many parts of my community role I cannot carry out
☐ I cannot carry out any part of my community role
Q8 How often did you feel in despair over the last seven days?

☐ Never
☐ Occasionally
☐ Sometimes
☐ Often
☐ All the time

Q9 And still thinking about the last seven days, how often did you feel worried?

☐ Never
☐ Occasionally
☐ Sometimes
☐ Often
☐ All the time

Q10 How often do you feel sad?

☐ Never
☐ Rarely
☐ Some of the time
☐ Usually
☐ Nearly all the time

Q11 When you think about whether you are calm and tranquil or agitated:

I am

☐ Always tranquil
☐ Usually tranquil
☐ Sometimes tranquil, sometimes agitated
☐ Usually agitated
☐ Always agitated
Q12 Thinking about how much energy you have to do the things you want to do:
   I am
   - Always full of energy
   - Usually full of energy
   - Occasionally energetic
   - Usually tired and lacking energy
   - Always tired and lacking energy

Q13 How often do you feel in control of your life?
   - Always
   - Mostly
   - Sometimes
   - Only occasionally
   - Never

Q14 How much do you feel you can cope with life’s problems?
   - Completely
   - Mostly
   - Partly
   - Very little
   - Not at all

Q15 Thinking about how often you experience serious pain:
   I experience it
   - Very rarely
   - Less than once a week
   - Three to four times a week
   - Most of the time

Q16 How much pain or discomfort do you experience:
   - None at all
   - I have moderate pain
   - I suffer from severe pain
   - I suffer unbearable pain
Q17 How often does pain interfere with your usual activities?

- Never
- Rarely
- Sometimes
- Often
- Always

Q18 Thinking about your vision (using your glasses or contact lenses if needed):

- I have excellent sight
- I see normally
- I have some difficulty focusing on things, or I do not see them sharply. Eg. Small print, a newspaper or seeing objects in the distance.
- I have a lot of difficulty seeing things. My vision is blurred. I can see just enough to get by with.
- I only see general shapes. I need a guide to move around.
- I am completely blind

Q19 Thinking about my hearing (using your hearing aid if needed):

- I have excellent hearing
- I hear normally
- I have some difficulty hearing or I do not hear clearly. I have trouble hearing softly-spoken people or when there is background noise.
- I have difficulty hearing things clearly. Often I do not understand what is said. I usually do not take part in conversations because I cannot hear what is said.
- I hear very little indeed. I cannot fully understand loud voices speaking directly to me.
- I am completely deaf

Q20 When you communicate with others, eg. by talking, listening, writing or signing:

- I have no trouble speaking to them or understanding what they are saying
- I have some difficulty being understood by people who do not know me. I have no trouble understanding what others are saying to me
- I am understood only by people who know me well. I have great trouble understanding what others are saying to me
- I cannot adequately communicate with others
Part 9 – Arthritis Self Efficacy

For each of the following questions, please tick the number that corresponds to how certain you are that you can do the following tasks regularly AT THE PRESENT TIME.

Self-Efficacy Pain Scale

1. How certain are you that you can decrease your pain quite a bit?

2. How certain are you that you can continue most of your daily activities?

3. How certain are you that you can keep arthritis pain from interfering with your sleep?

4. How certain are you that you can make a small-to-moderate reduction in your arthritis pain by using methods other than taking extra medication?

5. How certain are you that you can make a large reduction in your arthritis pain by using methods other than taking extra medication?
Self-Efficacy Function Scale

1. How certain are you that you can walk 100 feet (30 metres) on flat ground in 20 seconds?

2. How certain are you that you can walk 10 steps downstairs in 7 seconds?

3. How certain are you that you can get out of an armless chair quickly, without using your hands for support?

4. How certain are you that you can button and unbutton 3 medium-size buttons in a row in 12 seconds?

5. How certain are you that you can cut 2 bite-size pieces of meat with a knife and fork in 8 seconds?

6. How certain are you that you can turn an outdoor tap all the way on and all the way off?

7. How certain are you that you can scratch your upper back with both your right and left hands?
8. How certain are you that you can get in and out of the passenger side of a car without assistance from another person and without physical aids?

very uncertain 1 2 3 4 5 6 7 8 9 10 very certain

9. How certain are you that you can put on a long-sleeve front-opening shirt or blouse (without buttoning) in 8 seconds?

very uncertain 1 2 3 4 5 6 7 8 9 10 very certain

Self-Efficacy Other Symptoms Scale

1. How certain are you that you can control your fatigue?

very uncertain 1 2 3 4 5 6 7 8 9 10 very certain

2. How certain are you that you can regulate your activity so as to be active without aggravating your arthritis?

very uncertain 1 2 3 4 5 6 7 8 9 10 very certain

3. How certain are you that you can do something to help yourself feel better if you are feeling blue? *

very uncertain 1 2 3 4 5 6 7 8 9 10 very certain

4. As compared with other people with arthritis like yours, how certain are you that you can manage arthritis pain during your daily activities?

very uncertain 1 2 3 4 5 6 7 8 9 10 very certain

5. How certain are you that you can manage your arthritis symptoms so that you can do the things you enjoy doing? *

very uncertain 1 2 3 4 5 6 7 8 9 10 very certain
6. How certain are you that you can deal with the frustration of arthritis? *

very uncertain

1  2  3  4  5  6  7  8  9  10

very certain
Part 10 – Brief Fear of Movement Scale for Osteoarthritis

Please read each statement and circle a number 1, 2, 3 or 4 which indicates how much you agree or disagree with each statement.

1 = strongly disagree
2 = disagree
3 = agree
4 = strongly agree

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I’m afraid that I might injure myself if I exercise</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. If I were to try to overcome it, my pain would increase</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. I am afraid that I might injure myself accidentally</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<tr>
<td>4. Simply being careful that I do not make any unnecessary movements is the safest thing I can do to prevent my pain from worsening</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. It’s really not safe for a person with a condition like mine to be physically active</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. I can’t do all the things normal people do because it’s too easy for me to get injured</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
**Part 11 – Pain Catastrophising Scale**

Everyone experiences painful situations at some point in their lives. Such experiences may include headaches, tooth pain, joint or muscle pain. People are often exposed to situations that may cause pain such as illness, injury, dental procedures or surgery.

**Instructions**

We are interested in the types of thoughts and feelings that you have when you are in pain. Listed below are thirteen statements describing different thoughts and feelings that may be associated with pain. Using the following scale please tick the box which corresponds to the thoughts and feelings when you are experiencing pain.

1. **I worry all the time about whether the pain will end.**
   - (0) Not at all
   - (1) To a slight degree
   - (2) To a moderate degree
   - (3) To a great degree
   - (4) All the time

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2. **I feel I can’t go on.**
   - (0) Not at all
   - (1) To a slight degree
   - (2) To a moderate degree
   - (3) To a great degree
   - (4) All the time

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3. **It’s terrible and I think it’s never going to get any better.**
   - (0) Not at all
   - (1) To a slight degree
   - (2) To a moderate degree
   - (3) To a great degree
   - (4) All the time

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4. **It’s awful and I feel that it overwhelms me.**
   - (0) Not at all
   - (1) To a slight degree
   - (2) To a moderate degree
   - (3) To a great degree
   - (4) All the time

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</table>

5. **I feel I can’t stand it anymore**
   - (0) Not at all
   - (1) To a slight degree
   - (2) To a moderate degree
   - (3) To a great degree
   - (4) All the time

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HREC No: 1544919

Version date: 18/09/2017
6. I become afraid that the pain will get worse.
   (0) Not at all  (1) To a slight degree  (2) To a Moderate degree  (3) To a great degree  (4) All the time
   □  □  □  □  □

7. I keep thinking of other painful events.
   (0) Not at all  (1) To a slight degree  (2) To a Moderate degree  (3) To a great degree  (4) All the time
   □  □  □  □  □

8. I anxiously want the pain to go away.
   (0) Not at all  (1) To a slight degree  (2) To a Moderate degree  (3) To a great degree  (4) All the time
   □  □  □  □  □

9. I can’t seem to keep it out of my mind.
   (0) Not at all  (1) To a slight degree  (2) To a Moderate degree  (3) To a great degree  (4) All the time
   □  □  □  □  □

10. I keep thinking about how much it hurts.
    (0) Not at all  (1) To a slight degree  (2) To a Moderate degree  (3) To a great degree  (4) All the time
    □  □  □  □  □

11. I keep thinking about how badly I want the pain to stop.
    (0) Not at all  (1) To a slight degree  (2) To a Moderate degree  (3) To a great degree  (4) All the time
    □  □  □  □  □

12. There’s nothing I can do to reduce the intensity of the pain.
    (0) Not at all  (1) To a slight degree  (2) To a Moderate degree  (3) To a great degree  (4) All the time
    □  □  □  □  □
13. I wonder whether something serious may happen.

(0) Not at all   (1) To a slight degree   (2) To a Moderate degree   (3) To a great degree   (4) All the time

☐  ☐  ☑  ☐  ☐  ☐
Part 12 – DASS-21

Please read each statement and circle a number 0, 1, 2 or 3 which indicates how much the statement applied to you over the PAST WEEK.

The rating scale is as follows:
0  Did not apply to me at all
1   Applied to me to some degree, or some of the time
2   Applied to me to a considerable degree, or a good part of time
3   Applied to me very much, or most of the time

(please circle one number per line)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Did not apply to me at all</th>
<th>Applied to me to some degree, or some of the time</th>
<th>Applied to me to a considerable degree, or a good part of time</th>
<th>Applied to me very much, or most of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I found it hard to wind down</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>I was aware of dryness of my mouth</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>I couldn’t seem to experience any positive feeling at all</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>I found it difficult to work up the initiative to do things</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>I tended to over-react to situations</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>7</td>
<td>I experienced trembling (eg, in the hands)</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>8</td>
<td>I felt that I was using a lot of nervous energy</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>9</td>
<td>I was worried about situations in which I might panic and make a fool of myself</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>10</td>
<td>I felt that I had nothing to look forward to</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>11</td>
<td>I found myself getting agitated</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>12</td>
<td>I found it difficult to relax</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>13</td>
<td>I felt down-hearted and blue</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>14</td>
<td>I was intolerant of anything that kept me from getting on with what I was doing</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>15</td>
<td>I felt I was close to panic</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Question</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
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<td>-------------------------------------------------------------------------</td>
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<tr>
<td>16</td>
<td>I was unable to become enthusiastic about anything</td>
<td></td>
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<tr>
<td>17</td>
<td>I felt I wasn't worth much as a person</td>
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<td></td>
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<tr>
<td>18</td>
<td>I felt that I was rather touchy</td>
<td></td>
<td></td>
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<tr>
<td>19</td>
<td>I was aware of the action of my heart in the absence of physical exertion (e.g., sense of heart rate increase, heart missing a beat)</td>
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<tr>
<td>20</td>
<td>I felt scared without any good reason</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>I felt that life was meaningless</td>
<td></td>
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</tr>
</tbody>
</table>
Part 13 – Knee Instability and confidence

INSTRUCTIONS
The following questions concern the amount of stability you have in your study knee. Please tick the most appropriate box.

1. In the last month has your knee given way/buckled?
   Yes ☐  No ☐

If no, go to question 3.

2. If yes, to what extent are you troubled by your knee giving way/buckling?
   Not at all troubled ☐  Slightly troubled ☐  Moderately troubled ☐  Largely troubled ☐  Extremely troubled ☐

3. How confident are you in your ability to perform a knee strengthening exercise program safely without injuring your knee?
   Not at all confident ☐  Slightly confident ☐  Moderately confident ☐  Largely confident ☐  Extremely confident ☐

Part 14 – Expectation of Treatment

At this stage what effect do you think the treatment programs offered in the study will have on your knee?

(1) No effect at all ☐  (2) Minimal Improvement ☐  (3) Moderate Improvement ☐  (4) Large Improvement ☐  (5) Completely Recovered ☐
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Part 1 – Numeric Rating Scale

The following 2 questions ask you to rate the pain, on a scale from 0 (no pain) to 10 (worst pain possible) caused by your study knee. This is done by ticking a number on the scale. Please do not tick two numbers, you must choose a whole number. For example, in question 1, the closer you place the tick to 0, the less pain you feel in your study knee on average. The closer you place the tick to 10, the more pain you feel.

1. Tick the number which indicates the average amount of pain felt over the PAST WEEK in your study knee, overall.

   0 1 2 3 4 5 6 7 8 9 10
   no pain worst pain possible

2. Tick the number which indicates the average amount of pain felt over the PAST WEEK in your study knee, when you are walking.

   0 1 2 3 4 5 6 7 8 9 10
   no pain worst pain possible
### Part 2 – Previous Treatment

Have you tried any of the following in the **LAST 3 MONTHS** specifically for your knee pain?

(please circle one number on each line)

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Massage</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Manual therapy</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Walking stick, cane or other object to help with walking</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Ultrasound</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Low Level Laser Therapy (LLLT)</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Transcutaneous Electrical Nerve Stimulation (TENS)</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Orthotics, arch supports or wedging in your shoes</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Knee braces</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Heat/cold treatment</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Land-based exercises (eg. strengthening, aerobic or stretching exercises)</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Injections (eg. cortisone, Synvisc, platelet-rich plasma)</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Hydrotherapy (eg warm water exercises)</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Acupuncture</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Arthroscopic surgery</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>High tibial osteotomy surgery</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Ligament reconstructive surgery</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Knee joint replacement surgery</td>
<td>1</td>
<td>2</td>
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</tbody>
</table>
Have you taken any of the following medications or supplements **at least once per week over the LAST 3 MONTHS** specifically for your knee pain?

(please circle one number on each line)

<table>
<thead>
<tr>
<th>Medication Description</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anti-inflammatory tablets or capsules (eg. Voltaren, Nurofen, Mobic)</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Anti-inflammatory tablets or capsules – cox-2 inhibitors (eg. Celebrex, Vioxx)</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Analgesia/Paracetamol combinations (e.g. Panadol, Panadeine Forte, Panadol Osteo, Tramadol)</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Topical anti-inflammatory gels or creams (e.g. Voltaren emugel)</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Oral Corticosteroids (eg. Dexamethasone, Prednisolone)</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Oral Opioids (e.g. oxycodone, morphine, ms-contin, oxycontin, kapanol)</td>
<td>1</td>
<td>2</td>
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</table>
**Part 3 – KOOS**

**Instructions**

This survey asks for your view about your knee. This information will help us keep track of how you feel about your knee and how well you are able to do your usual activities.

Answer every question by ticking the appropriate box, only one box for each question. If you are unsure about how to answer a question, please give the best answer you can.

**Section A – Pain.**

These questions concern the amount of pain you have experienced in your knee during the **LAST WEEK**.

P1. How often is your knee painful?

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<thead>
<tr>
<th></th>
<th>Never</th>
<th>Monthly</th>
<th>Weekly</th>
<th>Daily</th>
<th>Always</th>
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**What degree of pain have you experienced the last week when …?**

P2. Twisting/pivoting on your knee

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<thead>
<tr>
<th></th>
<th>None</th>
<th>Mild</th>
<th>Moderate</th>
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P3. Straightening knee fully

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<th></th>
<th>None</th>
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<th>Moderate</th>
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P4. Bending knee fully

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<tr>
<th></th>
<th>None</th>
<th>Mild</th>
<th>Moderate</th>
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<th>Extreme</th>
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P5. Walking on flat surfaces

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<thead>
<tr>
<th></th>
<th>None</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
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P6. Going up or down stairs

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<thead>
<tr>
<th></th>
<th>None</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
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P7. At night while in bed

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<th></th>
<th>None</th>
<th>Mild</th>
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<th>Severe</th>
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P8. Sitting or lying

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<tr>
<th></th>
<th>None</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
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Section B – Symptoms.

These questions relate to the type of symptoms you have. (eg. stiffness is a sensation of restriction or slowness in the ease with which you move your knee, catching is feeling a halt in the middle or your range of motion). These questions should be answered thinking of your knee symptoms during the LAST WEEK.

Sy1. How severe is your knee stiffness after first waking in the morning?

None          Mild          Moderate        Severe          Extreme
☐              ☐              ☐               ☐               ☐

Sy2. How severe is your knee stiffness after sitting, lying or resting late in the day?

None          Mild          Moderate        Severe          Extreme
☐              ☐              ☐               ☐               ☐

Sy3. Do you have swelling in your knee?

Never          Rarely        Sometimes       Often           Always
☐              ☐              ☐               ☐               ☐

Sy4. Do you feel grinding, hear clicking or any other type of noise when your knee moves?

Never          Rarely        Sometimes       Often           Always
☐              ☐              ☐               ☐               ☐

Sy5. Does your knee catch or hang up when moving?

Never          Rarely        Sometimes       Often           Always
☐              ☐              ☐               ☐               ☐

Sy6. Can you straighten your knee fully?

Always        Often          Sometimes       Rarely         Never
☐              ☐              ☐               ☐               ☐

Sy7. Can you bend your knee fully?

Always        Often          Sometimes       Rarely         Never
☐              ☐              ☐               ☐               ☐

Section C – physical function.

These questions concern whether your knee interferes with normal everyday tasks and recreation.

Activities of daily living

What difficulty have you experienced in the following tasks during the LAST WEEK:

A1. Descending stairs

None          Mild          Moderate        Severe          Extreme
☐              ☐              ☐               ☐               ☐

A2. Ascending stairs

None          Mild          Moderate        Severe          Extreme
☐              ☐              ☐               ☐               ☐
<table>
<thead>
<tr>
<th>A3.</th>
<th>Rising from sitting</th>
<th>None</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
<th>Extreme</th>
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<tr>
<th>A4.</th>
<th>Standing</th>
<th>None</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
<th>Extreme</th>
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<tr>
<th>A5.</th>
<th>Bending to floor/pick up object</th>
<th>None</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
<th>Extreme</th>
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<tr>
<th>A6.</th>
<th>Walking on flat surface</th>
<th>None</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
<th>Extreme</th>
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<tr>
<th>A7.</th>
<th>Getting in/out of car</th>
<th>None</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
<th>Extreme</th>
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<tr>
<th>A8.</th>
<th>Going shopping</th>
<th>None</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
<th>Extreme</th>
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<thead>
<tr>
<th>A9.</th>
<th>Putting on socks/stockings</th>
<th>None</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
<th>Extreme</th>
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<tr>
<th>A10.</th>
<th>Rising from bed</th>
<th>None</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
<th>Extreme</th>
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<thead>
<tr>
<th>A11.</th>
<th>Taking off socks/stockings</th>
<th>None</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
<th>Extreme</th>
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<thead>
<tr>
<th>A12.</th>
<th>Lying in bed (turning over, maintaining knee position)</th>
<th>None</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
<th>Extreme</th>
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<tr>
<th>A13.</th>
<th>Getting in/out of bath</th>
<th>None</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
<th>Extreme</th>
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<thead>
<tr>
<th>A14.</th>
<th>Sitting</th>
<th>None</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
<th>Extreme</th>
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<tr>
<th>A15.</th>
<th>Getting on/off toilet</th>
<th>None</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
<th>Extreme</th>
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A16. Heavy domestic duties (scrubbing floors, shovelling)
None          Mild          Moderate          Severe          Extreme
☐            ☐              ☐               ☐              ☐

A17. Light domestic duties (cooking, dusting)
None          Mild          Moderate          Severe          Extreme
☐            ☐              ☐               ☐              ☐

Section D - Sport and recreation.

What difficulty have you experienced during the LAST WEEK….?

Sp1. Squatting
None          Mild          Moderate          Severe          Extreme
☐            ☐              ☐               ☐              ☐

Sp2. Running
None          Mild          Moderate          Severe          Extreme
☐            ☐              ☐               ☐              ☐

Sp3. Jumping
None          Mild          Moderate          Severe          Extreme
☐            ☐              ☐               ☐              ☐

Sp4. Turning/twisting on your injured knee
None          Mild          Moderate          Severe          Extreme
☐            ☐              ☐               ☐              ☐

Sp5. Kneeling
None          Mild          Moderate          Severe          Extreme
☐            ☐              ☐               ☐              ☐

Section E – knee related quality of life.

How much has your injury affected your life?

Q1. How often are you aware of your knee problems?
Never          Monthly          Weekly          Daily          Always
☐            ☐              ☐               ☐              ☐

Q2. Have you modified your lifestyle to avoid potentially damaging activities to your knee?
Not at all          Mildly          Moderately          Severely          Totally
☐            ☐              ☐               ☐              ☐

Q3. How troubled are you with lack of confidence in your knee?
Not at all          Mildly          Moderately          Severely          Extremely
☐            ☐              ☐               ☐              ☐

Q4. In general, how much difficulty do you have with your knee?
None          Mild          Moderate          Severe          Extreme
☐            ☐              ☐               ☐              ☐
INSTRUCTIONS
Please complete this questionnaire by either circling the correct response or filling in the blanks. Here is an example:

During the past 7 days, how often have you seen the sun?

[0] NEVER
[1] SELDOM (1-2 days)
[2] SOMETIMES (3-4 days)
[3] OFTEN (5-7 days)

Answer all items as accurately as possible. All information is strictly confidential.

LEISURE TIME ACTIVITY

1. Over the PAST 7 DAYS, how often did you participate in sitting activities such as reading, watching TV or doing handicrafts?

[0] NEVER
[1] SELDOM (1-2 days)
[2] SOMETIMES (3-4 days)
[3] OFTEN (5-7 days)

GO TO QUESTION 2.

1a. What were these activities?

1b. On the average, how many hours did you engage in these sitting activities?

[1] LESS THAN 1 HOUR
[2] 1 BUT LESS THAN 2 HOURS
[3] 2-4 HOURS
[4] MORE THAN 4 HOURS
2. Over the **PAST 7 DAYS**, how often did you take a walk outside your home or yard for any reason? For example, for fun or exercise, walking to work, walking the dog etc?

- [0] NEVER ➞ **GO TO QUESTION 3.**
- [1] SELDOM (1-2 days) ➞ 2a. On the average, how many hours per day did you spend walking?
  - [1] LESS THAN 1 HOUR
  - [2] 1 BUT LESS THAN 2 HOURS
  - [3] 2-4 HOURS
  - [4] MORE THAN 4 HOURS
- [2] SOMETIMES (3-4 days) ➞ 2a. On the average, how many hours per day did you spend walking?
- [3] OFTEN (5-7 days) ➞ 2a. On the average, how many hours per day did you spend walking?

3. Over the **PAST 7 DAYS**, how often did you engage in light sport or recreational activities such as bowling, golf with a cart, fishing from a boat or pier or other similar activities?

- [0] NEVER ➞ **GO TO QUESTION 4.**
- [1] SELDOM (1-2 days) ➞ 3a. What were these activities?
- [2] SOMETIMES (3-4 days) ➞ 3a. What were these activities?
- [3] OFTEN (5-7 days) ➞ 3a. What were these activities?

3b. On the average, how many hours per day did you engage in these light sport or recreational activities?

- [1] LESS THAN 1 HOUR
- [2] 1 BUT LESS THAN 2 HOURS
- [3] 2-4 HOURS
- [4] MORE THAN 4 HOURS
4. Over the **PAST 7 DAYS**, how often did you engage in moderate sport and recreational activities such as doubles tennis, ballroom dancing, golf without a cart, softball or other similar activities?

[0] NEVER → GO TO QUESTION 5.

[1] SELDOM (1-2 days) → 4a. What were these activities?

[2] SOMETIMES (3-4 days) → 4b. On the average, how many hours per day did you engage in these moderate sport or recreational activities?

[3] OFTEN (5-7 days) →

GO TO QUESTION 5.

4a. What were these activities?

________________________________________

4b. On the average, how many hours per day did you engage in these moderate sport or recreational activities?

[1] LESS THAN 1 HOUR
[2] 1 BUT LESS THAN 2 HOURS
[3] 2-4 HOURS
[4] MORE THAN 4 HOURS

5. Over the **PAST 7 DAYS**, how often did you engage in strenuous sport and recreational activities such as jogging, swimming, cycling, singles tennis, aerobic dance, skiing (downhill or cross-country) or other similar activities?

[0] NEVER → GO TO QUESTION 6.

[1] SELDOM (1-2 days) → 5a. What were these activities?

[2] SOMETIMES (3-4 days) →

[3] OFTEN (5-7 days) →

GO TO QUESTION 6.

5a. What were these activities?

________________________________________

5b. On the average, how many hours per day did you engage in these strenuous sport or recreational activities?

[1] LESS THAN 1 HOUR
[2] 1 BUT LESS THAN 2 HOURS
[3] 2-4 HOURS
[4] MORE THAN 4 HOURS
6. Over the **PAST 7 DAYS**, how often did you do any exercises specifically to increase muscle strength and endurance, such as lifting weights or pushups etc?

[0] NEVER → **GO TO QUESTION 7.**
[1] SELDOM (1-2 days) →
[2] SOMETIMES (3-4 days) →
[3] OFTEN (5-7 days) →

6a. What were these activities?

6b. On the average, how many hours per day did you engage in exercises to increase muscle strength and endurance?

[1] LESS THAN 1 HOUR
[2] 1 BUT LESS THAN 2 HOURS
[3] 2-4 HOURS
[4] MORE THAN 4 HOURS

HOUSEHOLD ACTIVITY

7. During the **PAST 7 DAYS**, have you done any light housework, such as dusting or washing dishes?


8. During the **PAST 7 DAYS**, have you done any heavy housework or chores, such as vacuuming, scrubbing floors, washing windows?

9. During the **PAST 7 DAYS**, did you engage in any of the following activities? Please circle YES or NO for each item.

<table>
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<tr>
<th>NO</th>
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a. Home repairs like painting, wallpapering, electrical work etc

b. Lawn work or yard care, including raking, wood chopping, etc

c. Outdoor gardening

d. Caring for another person, such as children, dependent spouse or another adult
WORK-RELATED ACTIVITY

10. During the **PAST 7 DAYS**, did you work for pay or as a volunteer?


---

10a. How many hours per week did you work for pay and/or as a volunteer?

   ____________________________ HOURS per week

---

10b. Which of the following categories best describes the amount of physical activity required on your job and/or volunteer work?

   [1] Mainly sitting with slight arm movements
      (Examples: office worker, watchmaker, seated assembly line worker, bus driver etc)

   [2] Sitting or standing with some walking
      (Examples: cashier, general office worker, light tool and machinery worker etc)

   [3] Walking with some handling of material generally weighing less than 50 pounds
      (Examples: mailman, waiter/waitress, construction worker, heavy tool and machinery worker etc)

   [4] Walking and heavy manual work, often requiring handling of materials weighing over 50 pounds
      (Examples: lumberjack, stone mason, farm or general labourer etc)
Part 5 - Quality of life (AQoL)

For each of the following questions, please TICK ☑ ONE alternative that best describes your situation during the LAST WEEK.

Q1 How much help do I need with household tasks (eg. Preparing food, cleaning the house or gardening):
- [ ] I can do all these tasks very quickly and efficiently without any help
- [ ] I can do these tasks relatively easily without help
- [ ] I can do these tasks only very slowly without help
- [ ] I cannot do most of these tasks unless I have help
- [ ] I can do none of these tasks by myself

Q2 Thinking about how easy or difficult it is for you to get around by yourself outside your house (eg. shopping, visiting):
- [ ] Getting around is enjoyable and easy
- [ ] I have no difficulty getting around outside my house
- [ ] A little difficulty
- [ ] Moderate difficulty
- [ ] A lot of difficulty
- [ ] I cannot get around unless somebody is there to help me

Q3 Thinking about how well you can walk.
- [ ] I find walking or running very easy
- [ ] I have no real difficulty with walking or running
- [ ] I find walking or running slightly difficult. I cannot run to catch a bus or train, I find walking uphill difficult
- [ ] Walking is difficult for me. I walk short distances only, I use a walking stick to walk with, I have difficulty walking up stairs
- [ ] I have great difficulty walking. I cannot walk without a walking stick or frame, or someone to help me
- [ ] I am bedridden
Q4  Thinking about washing yourself, toileting, dressing, eating or looking after my appearance:
☐ These tasks are very easy for me
☐ I have no real difficulty in carrying out these tasks
☐ I find some of these tasks difficult, but I manage to do them on my own
☐ Many of these tasks are difficult, and I need help to do them
☐ I cannot do these tasks by myself at all

Q5  Your close and intimate relationships (including any sexual relationships) make you:
☐ Very happy
☐ Generally happy
☐ Neither happy nor unhappy
☐ Generally unhappy
☐ Very unhappy

Q6  Thinking about your health and your relationship with your family:
☐ My role in the family is unaffected by my health
☐ There are some parts of my family role I cannot carry out
☐ There are many parts of my family role I cannot carry out
☐ I cannot carry out any part of my family role

Q7  Thinking about your health and your role in your community (that is to say neighbourhood, sporting, work, church or cultural groups):
☐ My role in the community is unaffected by my health
☐ There are some parts of my community role I cannot carry out
☐ There are many parts of my community role I cannot carry out
☐ I cannot carry out any part of my community role

Q8  How often did you feel in despair over the last seven days?
☐ Never
☐ Occasionally
☐ Sometimes
☐ Often
☐ All the time
Q9  And still thinking about the last seven days, how often did you feel worried?

- Never
- Occasionally
- Sometimes
- Often
- All the time

Q10  How often do you feel sad?

- Never
- Rarely
- Some of the time
- Usually
- Nearly all the time

Q11  When you think about whether you are calm and tranquil or agitated:

I am

- Always tranquil
- Usually tranquil
- Sometimes tranquil, sometimes agitated
- Usually agitated
- Always agitated

Q12  Thinking about how much energy you have to do the things you want to do:

I am

- Always full of energy
- Usually full of energy
- Occasionally energetic
- Usually tired and lacking energy
- Always tired and lacking energy
Q13 How often do you feel in control of your life?
- Always
- Mostly
- Sometimes
- Only occasionally
- Never

Q14 How much do you feel you can cope with life’s problems?
- Completely
- Mostly
- Partly
- Very little
- Not at all

Q15 Thinking about how often you experience serious pain:
I experience it
- Very rarely
- Less than once a week
- Three to four times a week
- Most of the time

Q16 How much pain or discomfort do you experience:
- None at all
- I have moderate pain
- I suffer from severe pain
- I suffer unbearable pain

Q17 How often does pain interfere with your usual activities?
- Never
- Rarely
- Sometimes
- Often
- Always
Q18 Thinking about your vision (using your glasses or contact lenses if needed):

- I have excellent sight
- I see normally
- I have some difficulty focusing on things, or I do not see them sharply. *Eg. Small print, a newspaper or seeing objects in the distance.*
- I have a lot of difficulty seeing things. *My vision is blurred. I can see just enough to get by with.*
- I only see general shapes. *I need a guide to move around.*
- I am completely blind

Q19 Thinking about my hearing (using your hearing aid if needed):

- I have excellent hearing
- I hear normally
- I have some difficulty hearing or I do not hear clearly. *I have trouble hearing softly-spoken people or when there is background noise.*
- I have difficulty hearing things clearly. *Often I do not understand what is said. I usually do not take part in conversations because I cannot hear what is said.*
- I hear very little indeed. *I cannot fully understand loud voices speaking directly to me.*
- I am completely deaf

Q20 When you communicate with others, eg. by talking, listening, writing or signing:

- I have no trouble speaking to them or understanding what they are saying
- I have some difficulty being understood by people who do not know me. *I have no trouble understanding what others are saying to me*
- I am understood only by people who know me well. *I have great trouble understanding what others are saying to me*
- I cannot adequately communicate with others
Part 6 – Arthritis Self Efficacy

For each of the following questions, please tick the number that corresponds to how certain you are that you can do the following tasks regularly AT THE PRESENT TIME.

Self-Efficacy Pain Scale

1. How certain are you that you can decrease your pain **quite a bit**?

2. How certain are you that you can continue most of your daily activities?

3. How certain are you that you can keep arthritis pain from interfering with your sleep?

4. How certain are you that you can make a **small-to-moderate** reduction in your arthritis pain by using methods other than taking extra medication?

5. How certain are you that you can make a **large** reduction in your arthritis pain by using methods other than taking extra medication?

Self-Efficacy Function Scale

1. How certain are you that you can walk 100 feet (30 metres) on flat ground in 20 seconds?
2. How certain are you that you can walk 10 steps downstairs in 7 seconds?
   
<table>
<thead>
<tr>
<th>Very Certain</th>
<th>Very Uncertain</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
</tbody>
</table>

3. How certain are you that you can get out of an armless chair quickly, without using your hands for support?
   
<table>
<thead>
<tr>
<th>Very Certain</th>
<th>Very Uncertain</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
</tbody>
</table>

4. How certain are you that you can button and unbutton 3 medium-size buttons in a row in 12 seconds?
   
<table>
<thead>
<tr>
<th>Very Certain</th>
<th>Very Uncertain</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
</tbody>
</table>

5. How certain are you that you can cut 2 bite-size pieces of meat with a knife and fork in 8 seconds?
   
<table>
<thead>
<tr>
<th>Very Certain</th>
<th>Very Uncertain</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
</tbody>
</table>

6. How certain are you that you can turn an outdoor tap all the way on and all the way off?
   
<table>
<thead>
<tr>
<th>Very Certain</th>
<th>Very Uncertain</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
</tbody>
</table>

7. How certain are you that you can scratch your upper back with both your right and left hands?
   
<table>
<thead>
<tr>
<th>Very Certain</th>
<th>Very Uncertain</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
</tbody>
</table>

8. How certain are you that you can get in and out of the passenger side of a car without assistance from another person and without physical aids?
   
<table>
<thead>
<tr>
<th>Very Certain</th>
<th>Very Uncertain</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
</tbody>
</table>
### 12-week follow up questionnaire booklet

#### TARGET

9. How certain are you that you can put on a long-sleeve front-opening shirt or blouse (without buttoning) in 8 seconds?

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<tr>
<td>very uncertain</td>
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#### Self-Efficacy Other Symptoms Scale

1. How certain are you that you can control your fatigue?

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2. How certain are you that you can regulate your activity so as to be active without aggravating your arthritis?

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3. How certain are you that you can do something to help yourself feel better if you are feeling blue? *

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4. As compared with other people with arthritis like yours, how certain are you that you can manage arthritis pain during your daily activities?

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</table>

5. How certain are you that you can manage your arthritis symptoms so that you can do the things you enjoy doing? *

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6. How certain are you that you can deal with the frustration of arthritis? *

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</tbody>
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Version 18/09/2017
**Part 7 – Brief Fear of Movement Scale for Osteoarthritis**

Please read each statement and circle a number 1, 2, 3 or 4 which indicates how much you agree or disagree with each statement.

1 = strongly disagree
2 = disagree
3 = agree
4 = strongly agree

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I’m afraid that I might injure myself if I exercise</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. If I were to try to overcome it, my pain would increase</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. I am afraid that I might injure myself accidentally</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. Simply being careful that I do not make any unnecessary movements is the safest thing I can do to prevent my pain from worsening</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. It’s really not safe for a person with a condition like mine to be physically active</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. I can’t do all the things normal people do because it’s too easy for me to get injured</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
Part 8 – Pain Catastrophising Scale

Everyone experiences painful situations at some point in their lives. Such experiences may include headaches, tooth pain, joint or muscle pain. People are often exposed to situations that may cause pain such as illness, injury, dental procedures or surgery.

Instructions

We are interested in the types of thoughts and feelings that you have when you are in pain. Listed below are thirteen statements describing different thoughts and feelings that may be associated with pain. Using the following scale please tick the box which corresponds to the thoughts and feelings when you are experiencing pain.

1. **I worry all the time about whether the pain will end.**
   - (0) Not at all
   - (1) To a slight degree
   - (2) To a Moderate degree
   - (3) To a great degree
   - (4) All the time

2. **I feel I can't go on.**
   - (0) Not at all
   - (1) To a slight degree
   - (2) To a Moderate degree
   - (3) To a great degree
   - (4) All the time

3. **It's terrible and I think it's never going to get any better.**
   - (0) Not at all
   - (1) To a slight degree
   - (2) To a Moderate degree
   - (3) To a great degree
   - (4) All the time

4. **It's awful and I feel that it overwhelms me.**
   - (0) Not at all
   - (1) To a slight degree
   - (2) To a Moderate degree
   - (3) To a great degree
   - (4) All the time
<p>| | | | | |</p>
<table>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>5.</td>
<td>I feel I can’t stand it anymore</td>
<td>(0) Not at all</td>
<td>(1) To a slight degree</td>
<td>(2) To a Moderate degree</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>I become afraid that the pain will get worse.</td>
<td>(0) Not at all</td>
<td>(1) To a slight degree</td>
<td>(2) To a Moderate degree</td>
</tr>
<tr>
<td></td>
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</tr>
<tr>
<td>7.</td>
<td>I keep thinking of other painful events.</td>
<td>(0) Not at all</td>
<td>(1) To a slight degree</td>
<td>(2) To a Moderate degree</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>I anxiously want the pain to go away.</td>
<td>(0) Not at all</td>
<td>(1) To a slight degree</td>
<td>(2) To a Moderate degree</td>
</tr>
<tr>
<td></td>
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<td></td>
</tr>
<tr>
<td>9.</td>
<td>I can’t seem to keep it out of my mind.</td>
<td>(0) Not at all</td>
<td>(1) To a slight degree</td>
<td>(2) To a Moderate degree</td>
</tr>
<tr>
<td></td>
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<td></td>
</tr>
<tr>
<td>10.</td>
<td>I keep thinking about how much it hurts.</td>
<td>(0) Not at all</td>
<td>(1) To a slight degree</td>
<td>(2) To a Moderate degree</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>I keep thinking about how badly I want the pain to stop.</td>
<td>(0) Not at all</td>
<td>(1) To a slight degree</td>
<td>(2) To a Moderate degree</td>
</tr>
<tr>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
12. **There's nothing I can do to reduce the intensity of the pain.**

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all</td>
<td>To a slight degree</td>
<td>To a moderate degree</td>
<td>To a great degree</td>
<td>All the time</td>
</tr>
</tbody>
</table>

13. **I wonder whether something serious may happen.**

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all</td>
<td>To a slight degree</td>
<td>To a moderate degree</td>
<td>To a great degree</td>
<td>All the time</td>
</tr>
</tbody>
</table>
### Part 9 – DASS-21

Please read each statement and circle a number 0, 1, 2 or 3 which indicates how much the statement applied to you **over the PAST WEEK**.

The rating scale is as follows:
- 0  Did not apply to me at all
- 1   Applied to me to some degree, or some of the time
- 2   Applied to me to a considerable degree, or a good part of time
- 3   Applied to me very much, or most of the time

(please circle one number per line)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Did not apply to me at all</th>
<th>Applied to me to some degree, or some of the time</th>
<th>Applied to me to a considerable degree, or a good part of time</th>
<th>Applied to me very much, or most of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I found it hard to wind down</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>I was aware of dryness of my mouth</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>I couldn’t seem to experience any positive feeling at all</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>I found it difficult to work up the initiative to do things</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>I tended to over-react to situations</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>7</td>
<td>I experienced trembling (eg, in the hands)</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>8</td>
<td>I felt that I was using a lot of nervous energy</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>9</td>
<td>I was worried about situations in which I might panic and make a fool of myself</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>10</td>
<td>I felt that I had nothing to look forward to</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>11</td>
<td>I found myself getting agitated</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>12</td>
<td>I found it difficult to relax</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>13</td>
<td>I felt down-hearted and blue</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>14</td>
<td>I was intolerant of anything that kept me from getting on with what I was doing</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>15</td>
<td>I felt I was close to panic</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Did not apply to me at all</td>
<td>Applied to me to some degree, or some of the time</td>
<td>Applied to me to a considerable degree, or a good part of the time</td>
<td>Applied to me very much, or most of the time</td>
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<tr>
<td>16</td>
<td>I was unable to become enthusiastic about anything</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>17</td>
<td>I felt I wasn’t worth much as a person</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>18</td>
<td>I felt that I was rather touchy</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>19</td>
<td>I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat)</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>20</td>
<td>I felt scared without any good reason</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>21</td>
<td>I felt that life was meaningless</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
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</tbody>
</table>
Part 10 – Knee Instability

INSTRUCTIONS
The following questions concern the amount of stability you have in your study knee. Please tick the most appropriate box.

1. In the last month has your knee given way/buckled?
   Yes   No
   [ ]   [ ]

If no to Q1, skip question 2.

2. If yes, to what extent are you troubled by your knee giving way/buckling?
   Not at all troubled   Slightly troubled   Moderately troubled   Largely troubled   Extremely troubled
   [ ]   [ ]   [ ]   [ ]   [ ]
Part 11 – Global Change

1. Place an “X” in the box which best represents the change in pain in your study knee since you began the trial.

   much worse  moderately worse  slightly worse  no change  slightly better  moderately better  much better
   [ ]    [ ]    [ ]    [ ]    [ ]    [ ]    [ ]

2. Place an “X” in the box which best represents the change in your physical function since you began the trial.

   much worse  moderately worse  slightly worse  no change  slightly better  moderately better  much better
   [ ]    [ ]    [ ]    [ ]    [ ]    [ ]    [ ]

3. Place an “X” in the box which best represents the overall change in your study knee since you began the trial.

   much worse  moderately worse  slightly worse  no change  slightly better  moderately better  much better
   [ ]    [ ]    [ ]    [ ]    [ ]    [ ]    [ ]
Part 12 – Adverse events

_Over the past 3 months_, did you experience any problems, either in your study knee or elsewhere in your body, as a result of the study intervention?

Yes  
No

If you answered **yes**, please answer the following questions (one line per problem):

<table>
<thead>
<tr>
<th>What was the nature of the problem?</th>
<th>When did the problem start?</th>
<th>How long did it last for?</th>
<th>If you sought treatment, what was the treatment?</th>
<th>Did you seek treatment from a doctor or any other health professional for this problem?</th>
<th>If yes, what type of health professional?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EXAMPLE:</strong> knee pain</td>
<td>about January 15</td>
<td>4 days</td>
<td>took panadol for 2 days</td>
<td>yes</td>
<td>saw GP</td>
</tr>
</tbody>
</table>


Part 13 – Other treatments

Since your assessment at the University (3 MONTHS AGO), did you commence any other treatments for your study knee (eg. other physiotherapy, exercise, injections etc)?

☐ No
☐ Yes

If Yes, please tick and describe how often you did them and for how long you underwent the treatment:

☐ Physiotherapy _______________________________________________________
☐ Exercises ___________________________________________________________
☐ Injections __________________________________________________________
☐ Surgery ____________________________________________________________
☐ Hydrotherapy _______________________________________________________
☐ Acupuncture _________________________________________________________
☐ Other treatment: ____________________________________________________
Part 14 – Exercise Adherence Questions

Thinking about the exercise program your physiotherapist recommended for your knee, to what extent would you agree with the following statements?
Place a circle on the scale to show your answer.

1) I have been doing my exercise sessions 4 times, each week as recommended

0 1 2 3 4 5 6 7 8 9 10
Strongly disagree Strongly agree

2) Within each exercise session, I have been doing all of the exercises recommended (e.g. 5 different exercises)

0 1 2 3 4 5 6 7 8 9 10
Strongly disagree Strongly agree

3) For each exercise, I have been doing the number of repetitions recommended (e.g. ten times each)

0 1 2 3 4 5 6 7 8 9 10
Strongly disagree Strongly agree

4) In the PAST WEEK, how many days did you do your recommended home exercises? (the maximum number of practices being 4 times in a week) (please tick one number)

0 1 2 3 4
Part 15 - EARS: Section B. Exercise Adherence Rating Scale

For each of the following 6 statements, please tick the box which best describes how you do your recommended exercises/activities. When thinking about your answer, please consider any exercises/activities that you have been asked to do as part of your treatment.

1. **I do my exercises as often as recommended**

<table>
<thead>
<tr>
<th>Completely agree</th>
<th>Completely disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

2. **I forget to do my exercises**

<table>
<thead>
<tr>
<th>Completely agree</th>
<th>Completely disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

3. **I do less exercise than recommended by my healthcare professional**

<table>
<thead>
<tr>
<th>Completely agree</th>
<th>Completely disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

4. **I fit my exercises into my regular routine**

<table>
<thead>
<tr>
<th>Completely agree</th>
<th>Completely disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

5. **I don’t get around to doing my exercises**

<table>
<thead>
<tr>
<th>Completely agree</th>
<th>Completely disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

6. **I do most, or all, of my exercises**

<table>
<thead>
<tr>
<th>Completely agree</th>
<th>Completely disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
NWB quadriceps strengthening exercise program

1. Quads over a roll (inner range knee extension)

Starting position:

Attach weight around ankle of the arthritis leg.

Sit on firm surface with body weight supported by arms behind. You can lie down if you prefer. Bend up the non-study leg and support the knee of the arthritis leg over some rolled up towels. Your arthritis knee should be bent about 30°.

Pull up the foot and ankle on the arthritis leg and keep the knee cap and toes pointing toward the ceiling.

Exercise:

Keeping the knee in contact with the towel, straighten the arthritis leg by SLOWLY lifting the heel off the surface.

Hold the leg straight, then SLOWLY lower down.
2. **Knee extension in sitting**

**Starting position:**

Attach weight around ankle of the arthritis leg.

Sit over the edge of a bed or chair, with both legs off the ground. If your chair is not high enough to have your feet clear of the ground, you can put some phone books on the chair.

**Exercise:**

SLOWLY straighten the knee and lift ankle weight up as high as possible.

Hold, then SLOWLY lower down.
3. Knee extension with hold at 30°

**Starting position:**

Attach weight around ankle of the arthritis leg.

Sit over the edge of a bed or chair, with both legs off the ground. If your chair is not high enough to have your feet clear of the ground, you can put some phone books on the chair.

**Exercise:**

Straighten the knee and SLOWLY lift ankle weight up to about 30° short of fully straightening your knee (your knee should be slightly bent).

Hold, then SLOWLY lower down.
4. Straight Leg Raise

Starting position:

Attach weight around ankle of the arthritis leg.

Lie on your back with body weight supported by your arms and elbows. You can lie down if you prefer.

Bend up the non-study leg and keep the arthritis leg straight with ankle and foot pulled up towards you. Both the kneecap and toes should be pointing toward the ceiling.

Exercise:

SLOWLY raise your leg straight up until it gets to approximately 30 cm or 12 inches off the bed. Ensure you keep your knee straight.

Hold, then SLOWLY lower down.
5. Short Arc Knee Extension

Starting position:

Your physiotherapist will give you a rubber band tied into a loop. Place the looped rubber band around the leg of a chair.

Sit on the chair and put your leg into the looped rubber band.

Exercise:

Slowly straighten your leg up into the rubber band until you can feel a comfortable resistance (should be about 60° knee bend).

Hold.

Slowly return to the starting position.
WB functional exercise program

Exercise 1: Forwards/backwards exercise
Level 1: Sliding

Starting position:

Standing on your arthritis leg with the non study leg on a sliding surface.

Sliding can be achieved by using a towel on smooth flooring or a plastic bag on the foot for carpet.

Use hand support for balance.

Exercise:

Slowly slide backwards and forwards with the ‘sliding leg’ while bending and straightening the arthritis leg.

Start with sliding just a few inches forwards and backwards and progress to larger slides as you gain control.

Keep your weight on the arthritis leg.

Concentrate on the alignment of your arthritis leg hip, knee and ankle – position your knee over your foot throughout.

Do 3 sets of 10 repetitions with a break of 30-60 seconds between sets.
Exercise 1:  Forwards/backwards exercise  
Level 2:  Sliding with Thera-band

Starting position:

Place a loop of Thera-Band around your arthritis knee and the leg of a table. This will provide a pull outwards on your knee that you must resist by aligning your knee over your foot through the whole exercise.

Your non study side foot should be on a sliding surface.

Sliding can be achieved by using a towel on smooth flooring or a plastic bag on the foot for carpet.

Exercise:

**Slowly** slide backwards and forwards with the ‘sliding leg’ while bending and straightening the arthritis leg.

Start with sliding just a few inches forwards and backwards and progress to larger slides as you gain control.

Keep your weight on the arthritis leg.

Concentrate on the alignment of your arthritis leg hip, knee and ankle – **position your knee over your foot** against the pull of the Thera-band throughout.

Do 3 sets of 10 repetitions with a break of 30-60 seconds between sets.
**Exercise 1: Forwards/backwards exercise**

**Level 3: Stepping**

**Starting position:**

Standing on your arthritis leg with your non-study leg behind. Use a hand support for balance.

**Exercise:**

Instead of sliding forwards and backwards, **slowly** take a step forwards with your non-study leg to touch the floor. Then take a step backwards to the starting position.

Keep your arthritis knee slightly bent and your weight on your arthritis leg through the whole exercise.

Start with a small step and progress to larger steps as you gain control.

Concentrate on the alignment of your arthritis leg hip, knee and ankle – **position your knee over your foot** throughout.

Do 3 sets of 10 repetitions with a break of 30-60 seconds between sets.
Exercise 1: Forwards/backwards exercise  
Level 4: Stepping with Thera-band

Starting position:

Place a loop of Thera-Band around your arthritis knee and the leg of a table. This will provide a pull outwards on your knee that you must resist by aligning your knee over your foot through the whole exercise.

Start standing on your arthritis leg with non-study leg behind.

Use hand support for balance.

Exercise:

Slowly, take a step forwards with your non-study leg to touch the floor. Then take a step backwards to the starting position.

Keep your arthritis knee slightly bent and your weight on your arthritis leg through the whole exercise.

Start with a small step and progress to larger steps as you gain control.

Concentrate on the alignment of your arthritis leg hip, knee and ankle – position your knee over your foot against the pull of the Thera-band throughout.

Do 3 sets of 10 repetitions with a break of 30-60 seconds between sets.
Exercise 2: Sideways exercise
Level 1: Sliding

Starting position:

Standing on your arthritis leg with the other leg on a sliding surface.

Sliding can be achieved by using a towel on smooth flooring or a plastic bag on the foot for carpet.

Use hand support for balance.

Exercise:

**Slowly** slide out sideways with the ‘sliding leg’ while bending the arthritis leg. Then slide back to the starting position.

Start with sliding just a few inches and progress to larger slides as you gain control.

Keep your weight on your arthritis leg through the whole exercise.

Concentrate on the alignment of your arthritis leg hip, knee and ankle – **position your knee over your foot** throughout.

Do 3 sets of 10 repetitions with a break of 30-60 seconds between sets.
Exercise 2: Sideways exercise  
Level 2: Sliding with Thera-band

Starting position:

Place a loop of Thera-Band around your arthritis knee and the leg of a table. This will provide a pull outwards on your knee that you must resist by aligning your knee over your foot through the whole exercise.

Standing on your arthritis leg with the other leg on a sliding surface.

Sliding can be achieved by using a towel on smooth flooring or a plastic bag on the foot for carpet.

Exercise:

*Slowly* slide out sideways with the non-study leg while bending your arthritis knee.

Start with sliding just a few inches and progress to larger slides as you gain control.

Keep your weight on your arthritis leg through the whole exercise.

Concentrate on the alignment of your arthritis leg hip, knee and ankle – *position your knee over your foot* against the pull of the Thera-band throughout.

Do 3 sets of 10 repetitions with a break of 30-60 seconds between sets.
## Exercise 2: Sideways exercise
### Level 3: Sliding with Thera-band and foam

**Starting position:**

Place a loop of Thera-Band around your arthritis knee and the leg of a table. This will provide a pull outwards on your knee that you must resist by aligning your knee over your foot through the whole exercise.

Standing on your arthritis leg on your foam cushion, with your non-study leg on a sliding surface.

Sliding can be achieved by using a towel on smooth flooring or a plastic bag on the foot for carpet.

**Exercise:**

*Slowly* slide out sideways with the non-study leg while bending your arthritis knee.

Start with sliding just a few inches and progress to larger slides as you gain control.

Keep your weight on your arthritis leg through the whole exercise.

Concentrate on the alignment of your arthritis leg hip, knee and ankle – position your knee over your foot against the pull of the Thera-band throughout.

Do 3 sets of 10 repetitions with a break of 30-60 seconds between sets.
## Exercise 2: Sideways exercise
### Level 4: Sliding with Thera-band and foam and eyes closed

**Starting position:**

Place a loop of Thera-Band around your arthritis knee and the leg of a table. This will provide a pull outwards on your knee that you must resist by aligning your knee over your foot through the whole exercise.

Standing on your arthritis leg on your **foam cushion**, with your non-study leg on a sliding surface. Sliding can be achieved by using a towel on smooth flooring or a plastic bag on the foot for carpet.

**Close your eyes.**

**Exercise:**

*Slowly* slide out sideways with the non-study leg while bending your arthritis knee. Start with sliding just a few inches and progress to larger slides as you gain control.

Keep your weight on your arthritis leg through the whole exercise.

Concentrate on the alignment of your arthritis leg hip, knee and ankle – **position your knee over your foot** against the pull of the Thera-band throughout.

Do 3 sets of 10 repetitions with a break of 30-60 seconds between sets.
Exercise 3: Hip muscle strengthening
Level 1: Wall push

Starting position:

Stand sideways to a wall with non-study leg against the wall.

Slightly bend arthritis knee to about 15-20°.

Lift the non-study leg just off the floor so that hip, thigh and knee are touching the wall.

Exercise:
Push your non-study leg into the wall and hold for 20.
Return your foot to the floor and rest for a few seconds.

Arthritis knee

Concentrate on the alignment of your arthritis leg hip, knee and ankle – position your knee over your foot throughout.

Do 2 sets of 5 repetitions with a break of 30-60 seconds between sets.
Exercise 3: Hip muscle strengthening  
Level 2: Wall push with deeper knee bending

Starting position:

Stand sideways to a wall with non-study leg against the wall.

Slightly bend arthritis knee to about 15-20°.

Lift the non-study leg just off the floor so that hip, thigh and knee are touching the wall.

Activity:

Push non-study leg into the wall.

While continuing to push into the wall, slowly bend your arthritis knee to a maximum of 45°.

Straighten your knee and return your foot to the floor and rest for a few seconds.

Concentrate on the alignment of your arthritis leg hip, knee and ankle – *position your knee over your foot* throughout.

Do 2 sets of 5 repetitions with a break of 30-60 seconds between sets.
Exercise 3: Hip muscle strengthening  
Level 3: Crab walking + red Thera-band

Starting position:

Place a loop of red Thera-Band around both ankles so that there is tension when ankles are separated 10cm. Slightly bend both knees.

For safety, you should stand facing a table, a kitchen bench or a wall which you can reach if you lose balance.

Exercise:

Step sideways against the pull of the Thera-band.

Do not twist or turn your body or legs. Your feet must point forwards while you are stepping sideways.

Concentrate on the alignment of both your arthritis and non-study legs – **position your knee over your foot** throughout.

Do a total of **30 steps in each direction**. For example, you can do all 30 in one direction around a table before changing direction. Or you can do 5 in one direction along a kitchen bench, change direction and do 5 back to the start and repeat this 6 times to reach your total of 30 in both directions.
Exercise 3: Hip muscle strengthening
Level 4: Crab walking + black Thera-band

Starting position:

Place a loop of black Thera-Band around both ankles so that there is tension when ankles are separated 10cm. Slightly bend both knees.

For safety, you should stand facing a table, a kitchen bench or a wall which you can reach if you lose balance.

Exercise:

Step sideways against the pull of the Thera-band.

Do not twist or turn your body or legs. Your feet must point forwards while you are stepping sideways.

Concentrate on the alignment of both your arthritis and non-study legs – position your knee over your foot throughout.

Do a total of 30 steps in each direction. For example, you can do all 30 in one direction around a table before changing direction. Or you can do 5 in one direction along a kitchen bench, change direction and do 5 back to the start and repeat this 6 times to reach your total of 30 in both directions.
Exercise 4:  Knee muscle strengthening
Level 1:  Wall squats

Starting position:

Stand with your back to a wall, feet 10cm apart and 15cm away from the wall.

You may like a towel behind your hips to help you slide down the wall.

Exercise:

Slide *slowly* down the wall until your knees are bent about 30°, then slowly slide up again.

“Down, 2, 3, hold, 2, 3, up, 2, 3”

Your knees should stay in line with your feet.

Concentrate on the alignment of both your arthritis and non-study legs – position your knee over your foot throughout.

Do 3 sets of 10 repetitions with a break of 30-60 seconds between sets.
Exercise 4: Knee muscle strengthening
Level 2: Wall squats with more weight on arthritis leg

Starting position:
Stand with your back to a wall, feet 10cm apart and arthritis leg 15cm away from the wall. Your non-study side can be (a) further forward or (b) level with the arthritis leg but with your body shifted over the arthritis leg. You must have more weight on your arthritis leg through the whole exercise.

You may like a towel behind your hips to help you slide down the wall.

Exercises:
Slide slowly down the wall until your arthritis knee is bent about 30°, then slowly slide up again.

“Down, 2, 3, hold, 2, 3, up, 2, 3”

Your knees should stay in line with your feet.

You may use some scales under arthritis leg to check you keep more weight on that side.

Concentrate on the alignment of your arthritis leg hip, knee and ankle – position your knee over your foot throughout.

Do 3 sets of 10 repetitions with a break of 30-60 seconds between sets.
Exercise 4: Knee muscle strengthening
Level 3: Chair stands

Starting position:

Sit on a standard height (eg. kitchen) chair, with your feet parallel and hip width apart.

Reach your hands out in front.

Exercise:

Stand up from the chair slowly (count 4 seconds) without using your hands.

Slowly return to sitting (count 4 seconds).

“Up, 2, 3, 4, down, 2, 3, 4”

Concentrate on the alignment of both your arthritis leg and your non-study leg – position your knee over your foot throughout.

Do 3 sets of 10 repetitions with a break of 30-60 seconds between sets.
Exercise 4: Knee muscle strengthening
Level 4: Chair stands with more weight on arthritis leg

Starting position:

Sit on a standard height (eg. kitchen) chair, with your feet hip width apart.

Take more weight on your arthritis leg by either (a) placing your non-study leg further forward, or (b) shifting your feet sideways so your arthritis leg is in front of your body.

Reach your hands out in front.

Exercise:

Stand up from the chair slowly (count 4 seconds) without using your hands.

Slowly return to sitting (count 4 seconds).

“Up, 2, 3, 4, down, 2, 3, 4”

Concentrate on the alignment of your arthritis leg hip, knee and ankle – position your knee over your foot throughout. You must have more weight on your arthritis leg through the whole exercise.

Do 3 sets of 10 repetitions with a break of 30-60 seconds between sets.
Exercise 5: Step-ups
Level 1: Step-ups

Starting position:

Place your arthritis leg onto a step in front of you.

Use a hand support (back of chair or handrail) for balance.

Exercise:

Step up onto the step slowly, carefully controlling the movement of your arthritis knee.

Just lightly touch your non-study leg to the step, and then step it back down slowly to the start position.

Your weight should be on your arthritis leg through the whole exercise.

Concentrate on the alignment of your arthritis leg hip, knee and ankle – position your knee over your foot throughout.

Do 3 sets of 10 repetitions with a break of 30-60 seconds between sets.
Exercise 5:  Step-ups
Level 2:  Step-ups with weight

Starting position:

Hold 2kg of weight (a) against your chest, (b) in each hand, (c) in one hand while holding on for balance with the other, or (d) in a backpack.

Place your arthritis leg onto a step in front of you. Weight can be a 2L milk bottle filled (2kg) or half filled (1kg) with water.

Exercise:

Step up onto the step slowly, carefully controlling the movement of your arthritis knee.

Just lightly touch your non-study leg to the step, and then step it back down slowly to the start position.

Your weight should be on your arthritis leg through the whole exercise. Concentrate on the alignment of your arthritis leg hip, knee and ankle — position your knee over your foot throughout.

Do 3 sets of 10 repetitions with a break of 30-60 seconds between sets.
Exercise 5: Step-ups
Level 3: Forward touch downs

Starting position:

Stand on the step.

Use a hand support (back of chair or handrail) for balance.

Exercise:

Controlling the movement of your arthritis knee, reach your non-study side towards the floor in front. If you can reach the floor, just touch it lightly. Return to the starting position.

Your weight should be on your arthritis leg through the whole exercise.

Concentrate on the alignment of your arthritis leg hip, knee and ankle – position your knee over your foot throughout.

Do 3 sets of 10 repetitions with a break of 30-60 seconds between sets.
Exercise 5: Step-ups

Level 4: Forward touch downs with weight

Starting position:

Stand on the step.

Hold 2kg of weight (a) against your chest, (b) in each hand, (c) in one hand while holding on for balance with the other, or (d) in a backpack.

Weight can be a 2L milk bottle filled (2kg) or half filled (1kg) with water.

Exercise:

Controlling the movement of your arthritis knee, reach your non-study side towards the floor in front. If you can reach the floor, just touch it lightly. Return to the starting position.

Your weight should be on your arthritis leg through the whole exercise.

Concentrate on the alignment of your arthritis leg hip, knee and ankle – position your knee over your foot throughout.

Do 3 sets of 10 repetitions with a break of 30-60 seconds between sets.
Appendix Table 3: Guide to progression for weight bearing functional exercise program

<table>
<thead>
<tr>
<th>Level</th>
<th>Repetitions</th>
<th>Progression</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Exercise 1. Forwards/ backwards</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Sliding</td>
<td>3 sets of 10 with break of 30-60 seconds between sets</td>
<td>Weeks 1, 2 and 3</td>
</tr>
<tr>
<td>2. Sliding with Thera-band</td>
<td>3 sets of 10 with break of 30-60 seconds between sets</td>
<td>Weeks 4, 5 and 6</td>
</tr>
<tr>
<td>[Choose a Thera-band colour appropriate for the patient’s ability to ‘medialise’ their knee.]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Stepping</td>
<td>3 sets of 10 with break of 30-60 seconds between sets</td>
<td>Weeks 7, 8 and 9</td>
</tr>
<tr>
<td>4. Stepping with Thera-band</td>
<td>3 sets of 10 with break of 30-60 seconds between sets</td>
<td>Weeks 10, 11 and 12.</td>
</tr>
<tr>
<td>[Choose a Thera-band colour appropriate for the patient’s ability to ‘medialise’ their knee.]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| **Exercise 2. Sideways exercise** | | |
| 1. Sliding | 3 sets of 10 with break of 30-60 seconds between sets | Weeks 1, 2 and 3 |
| 2. Sliding with Thera-band | 3 sets of 10 with break of 30-60 seconds between sets | Weeks 4, 5 and 6 |
| [Choose a Thera-band colour appropriate for the patient’s ability to ‘medialise’ their knee.] | | |
| 3. Sliding with Thera-band and foam | 3 sets of 10 with break of 30-60 seconds between sets | Weeks 7, 8 and 9 |
| [Choose a Thera-band colour appropriate for the patient’s ability to ‘medialise’ their knee.] | | |
| 4. Sliding with Thera-band, foam and eyes closed | 3 sets of 10 with break of 30-60 seconds between sets | Weeks 10, 11 and 12. |
| [Choose a Thera-band colour appropriate for the patient’s ability to ‘medialise’ their knee.] | | |

| **Exercise 3. Hip muscle strengthening** | | |
| 1. Wall push | 20 second holds with short break between efforts. Two sets of 5 with break of 30-60 seconds between sets. | Weeks 1, 2 and 3 |
| 2. Wall push with knee bending | Short break between efforts. Two sets of 5 with break of 30-60 seconds between sets. | Weeks 4, 5 and 6 |
| 3. Crab walking with red Thera-band | Total of 30 steps in each direction. [May do all 30 before changing direction or may do in smaller groups depending on available space] | Weeks 7, 8 and 9 |
| 4. Crab walking with black Thera-band | Total of 30 steps in each direction. [May do all 30 before changing direction or may do in smaller groups depending on available space] | Weeks 10, 11 and 12. |

| **Exercise 4. Knee muscle strengthening** | | |
| 1. Wall squats | 3 sets of 10 with break of 30-60 seconds between sets | Weeks 1, 2 and 3 |
| 2. Wall squats with more weight on arthritis leg | 3 sets of 10 with break of 30-60 seconds between sets | Weeks 4, 5 and 6 |
| 3. Chair stands | 3 sets of 10 with break of 30-60 seconds between sets | Weeks 7, 8 and 9 |
| 4. Chair stands with more weight on arthritis leg | 3 sets of 10 with break of 30-60 seconds between sets | Weeks 10, 11 and 12. |

| **Exercise 5. Step-ups** | | |
| 1. Step-ups | 3 sets of 10 with break of 30-60 seconds between sets | Weeks 1, 2 and 3 |
| 2. Step-ups with 2kg weight | 3 sets of 10 with break of 30-60 seconds between sets | Weeks 4, 5 and 6 |
| 3. Forward touch downs | 3 sets of 10 with break of 30-60 seconds between sets | Weeks 7, 8 and 9 |
| 4. Forward touch downs with 2kg weight | 3 sets of 10 with break of 30-60 seconds between sets | Weeks 10, 11 and 12. |