

# News Rheum



Edition 2:  
Sleep, mood & mental health  
Summer 2018

WORKING TOWARDS BETTER RHEUMATIC AND ARTHRITIS RESEARCH - TOGETHER

**Welcome to the second News Rheum Newsletter! The theme of this edition is MENTAL HEALTH, WELLBEING & SLEEP**

It's been a busy few months, with the Annual European Rheumatology Congress (EULAR) in June. The Patient Voice in Arthritis Research Patient Insight Partners were represented at the congress by Emma Dorris, who spoke about the co-development between patients and researchers of our public and patient involvement in research strategy.



We hope you enjoy News Rheum. If you would like to get involved, please contact us at:

[patientvoicearthritis@ucd.ie](mailto:patientvoicearthritis@ucd.ie)

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## My experience as a patient insight partner by Oonagh Diamond

I discovered the role of Patient Insight Partners with Arthritis Research UK (ARUK) whilst recovering from two wrist surgeries. I was fortunate that both surgeries occurred within eighteen months of each other but due to the lengthy recuperation period I was forced to give up work. I had worked since I left university almost twenty years ago and to suddenly find myself both unemployed and unable to work was very difficult. I was unable to drive and relied on help to go out and to generally look after myself. This lack of independence left me feeling both withdrawn and quite down.

During this time the support of my family and close friends was extremely important as they helped me realise the 'positives' in my life and I gradually started to become involved in my local Arthritis Care NI charity. I attended short courses on pain management and how to manage my condition and I met a variety of people with various autoimmune conditions. I realised I wanted to learn more about Arthritis and the Arthritis Research UK website proved a valuable resource. Whilst researching these conditions I also discovered Patient Insight Partners (PIP) and I was immediately interested.

The role of Patient Insight Partners with Arthritis Research UK means the charity's focus is how it can improve the quality of life for a patient living with (any form of) Arthritis. This means that research which is funded must be relevant, accessible and sensitive. As part of my application I submitted my CV. I was interviewed for this voluntary posi-

tion to assess my motivations for wanting to become involved. During the interview I asked several questions about what the role would entail and I shared my opinion that as a 'lay person' I could only give a patient's view and not an academic opinion. I was assured that



all pieces of work - be that online reviewed of grant applications, group meetings and panel discussions would always have a representative sample of people from a variety of backgrounds so this alleviated any concerns I had. I also asked how much involvement would be expected of me. Again I was assured that my involvement was based entirely on the time I could donate and the charity recognised that sometimes because of work and personal commitments or perhaps because of illness each PIP's involvement would vary. This was very reassuring to know.

I joined the Arthritis Research UK Patient Insight Partners panel just over a year ago and I've since learned that many of my colleagues have been actively involved members of PIP in the charity for over ten years. The position varies. The ARUK team will contact PIP

members by email requesting involvement in various panels where you will be requested to read and give feedback on grant applications. During the initial training induction day, the team from ARUK will provide training on how to give this feedback by providing a set of criteria which helps the PIP give constructive feedback. For each grant application there will be feedback provided by a range of people with different specialisms including clinicians, researchers etc which collectively allows the Charity to assess the feasibility of providing funding from a holistic perspective. Sometimes we have to travel to central locations to attend meetings, provide feedback and participate in group discussions always mindful of the fact that we share different opinions and each person's view is considered.

Since becoming a PIP member with Arthritis Research UK I believe I have learnt so much about Arthritis and associated diseases and how these impact on each other's lives. I've met some really inspirational people and in some small way I feel a degree of pride knowing that I now play my part in helping improve the type of research carried out and that one day a cure will be found.



## Depression under the Microscope: An interview with Dr. Jana Haase by Declan Sweeney



For those of us who suffer a chronic illness such as Rheumatoid Arthritis, we know only too well the visible redness around our joints, together with the excruciating pain and stiffness.

The invisible cloak of depression which darkens our mood, and can cause isolation and unbearable loneliness also affects a percentage of RA sufferers. For this group, help may be a step closer, according to Jana Haase researcher at the School of Bio-molecular and Biomedical Science, UCD, Conway Institute, University College Dublin.

I first asked her how many patients in Ireland with RA suffer from depression. “ Depression is a common condition affecting up to 3-5% of the general population. For RA patients, the percentage is considerably higher, and estimates vary according to the way in which depression is measured. Using pooled estimates and standard clinical interviews suggest that major depression is present in 16.8% of RA patients. In addition, using other screening tools suggest that significant depressive symptoms are present in RA patients ranging from 38.8% to as high as 48%.”

In their recently published study (Brown et al., 2018) they outline results of their pre-clinical trials, which investigated how RA affects brain function. The study found that RA like conditions cause be-

havioural symptoms and distinct changes in certain

brain regions at a molecular level that are similar to those found in depression. A commonly used treatment for RA, Enbrel, not only lessens the joint inflammation but completely reverses the changes in the central nervous system in their model. These findings give Jana and her scientist colleagues a better understanding of the molecular connections between RA and depression, as well as hope to ultimately find new treatments that more effectively treat the entire spectrum of symptoms experienced by RA patients, i.e. to not only treat joint inflammation and pain, but also depression and anxiety.

From a patients point of view, such as myself and others, this is indeed good news, as it firstly scientifically proves that far from being depressed, just because we have RA, and we should somehow “ pull ourselves together” the evidence is finally there that indeed it is not our fault, but owing to distinct measurable changes in the brain.

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interview continued...

Jana pointed to another study carried out in Germany, where German scientists using MRI scans of the brain, discovered that RA leads to changes in the metabolic activity in certain brain regions indicating alterations in neuronal processing resulting from sensitization within the central nervous system, and enhanced vulnerability of the pain pathway and ultimately contributing to mood symptoms. This study gives credence to the results carried out by Jana and her colleagues in UCD, and moreover further comfort to RA patients that there are significant resources being put into RA research. Studies such as these also open up possibilities for using more objective tools in diagnosing changes in the CNS in RA patients.

Finally I asked Jana, about future studies. "We are working on analysing the Gender/ Sex differences in RA and depression. As we know, generally more women are affected by RA than men. Women usually develop RA just before or in menopause, or after pregnancy, when estrogen levels fluctuate and decline. We want to explore whether estrogen also has a protective effect on brain function.

As we parted in the Foyer, I left with a feeling of great hope that scientists like Jana are working in collaboration with colleagues across Europe to find a cure for RA. Their work gives all RA sufferers confidence that we a step closer to treating RA in a more holistic way, where Rheumatologists and Psychiatrists can work together to improve the lives of all RA patients.

*Dr. Jana Haase is a Principal Investigator in the UCD School of Biomolecular and Biomedical Science based at UCD Conway Institute*



## Resources & Events

**Arthritis Ireland** run a number of self-management programmes, both in the community and [online](#).



To find local support group for people with arthritis and related conditions and their family members check their [online events calendar](#)

Living Well with Arthritis Online is a free online course aimed to help improve your understanding of arthritis

<http://arthritisireland-education.com/>



### Arthritis Ireland

*Little Things make a Big Difference*

**iCAN Ireland** are running a number of water activity events are around the country. All teens & children with JIA are invited, along with their siblings. This is an iCAN sponsored event free to all children with JIA and their siblings. Numbers are limited, please register by email to [icanireland.events@gmail.com](mailto:icanireland.events@gmail.com) with your preferred location in the subject header.

Cork: Saturday, July 14th, 10am-4pm

Wicklow: Saturday, July 21st, 10am-4pm

Athlone: August 11th, 10am-4pm

iCAN Young Adult Workshop: July 7th in Portlaoise  
contact [icanireland@gmail.com](mailto:icanireland@gmail.com) for more details



## EULAR Congress 2018: A Patient's View

by Peter Boyd

### Annual European Congress of Rheumatology

As a patient expert delivering self-management courses and talks all around Dublin, and indeed Ireland, there are often two areas of most interest to attendees. These are diet and, perhaps more commonly, the psychology around diagnoses and the chronic nature of those same diagnoses.

Very often when people are diagnosed with a rheumatic disease it comes after a long period of struggling for answers as to what is happening to their body. We wouldn't be human if we didn't at some point question if there was even a remote possibility of these diseases being all in our heads.

To arrive at my very first EULAR Congress to see this very issue being addressed, not just by patients, but by researchers and rheumatologists was very encouraging. For a long time, we have

sought patient-centred care and for a more holistic approach to be taken to our treatment.

In having this important area of psychology researched proves that it is a genuine concern for patients and that there is a real connection between it and our physical pain.

Stephen Woodhams (ARUK) gave a fascinating presentation about the links between anxiety, depression and pain. He explained



how their study found a greater link between anxiety and pain, than between depression and pain.

“High anxiety patients show greater sensitivity, not only to knee pain in OA [osteoarthritis], but also other sites in the body.”

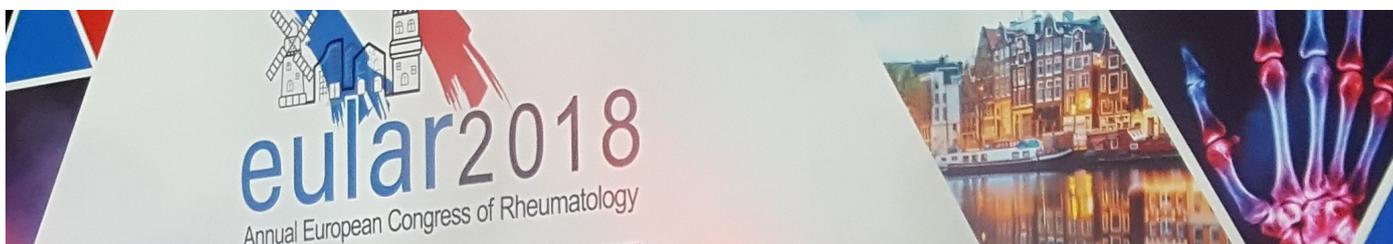
However, this needs to become more prevalent a question as Rob Smeets from the Netherlands showed just 23% of rheumatologists asked about the psychosocial aspects of rheumatic disease.

From a personal point of view, I know how devastating the anxiety over disease progression can be. It is something I deal with daily and along with depression it can be even more debilitating at times than the arthritis.

I spoke about this when delivering my presentation about improving communication between Health Care Professionals and patients, and these better appointments became all the more important following Dr Smeets documented study.

To see anxiety, depression and arthritis talked about on an even and rational basis was inspiring for me and I was delighted to see this area highlighted during my first EULAR Congress in Amsterdam. It is only the beginning though and we need to see so much more work done to ensure the patient is the centre of care and holistic treatment approaches provided.

**For more information about EULAR and PARE visit:**  
[www.eular.org/pare.cfm](http://www.eular.org/pare.cfm)



## Exploring the impact of exercise on sleep in Inflammatory Arthritis by Seán McKenna



Sleep is an essential aspect in maintaining the body's circadian rhythm which consists of our physical, mental and behavioural changes which follow a daily cycle. Sleep is also important in maintaining our health-related quality of life (HQoL) therefore, sleep disturbances can have a detrimental impact on same. Sleep disturbances and poor sleep quality are prevalent complaints in people with Inflammatory Arthritis. According to the National Sleep Foundation adults/older adults are required to achieve between 7 and 9 hours sleep per night. This duration is necessary as sleep has a role to play in our immune system and is also important in the restoration and maintenance of homeostasis. Homeostasis refers to our body's ability to maintain a state of equilibrium or stability within its internal environment, which includes the function of our kidney, liver, skin, etc. Sleep disorders and reduced sleep duration may lead to the development of autoimmune diseases like RA, due to the triggering of autoantibody production.

Poor sleep has been identified as a major concern for people with Inflammatory Arthritis, with disturbed sleep and fatigue known to affect up to 70% in this population. This consequently has an

influence on their mental and physical health and may lead to reduced levels of activity. It is known that exercise improves our psychological state which can also be an additional factor in improving or disrupting sleep quality. Therefore, aiming to increase our sleep duration and improving sleep

quality through exercise, may be a health promotion strategy that is feasible and safe.

Current rheumatology guidelines recommend exercise as a key component in the management of people with Inflammatory Arthritis however, what is lacking is

information on exercise and its overall effect on sleep. Studies that observe people with inflammatory arthritis, using subjective and objective methods, indicate that those who are more physically active also have longer sleep duration however, to test for any effectiveness randomised controlled trials are required. Research has shown that people with inflammatory arthritis may benefit from several forms of exercise. In addition, there is evidence that exercise interventions are safe and beneficial for people with RA. However, adherence to exercise is often low or unrecorded raising questions about the feasibility and acceptability of some forms of exercise. From the literature aerobic exercise shows the best results in increasing sleep duration therefore, walking may represent an ideal form of aerobic activity. Walking is a low-

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# #LoveIrish Research

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cost and simple form of exercise, requiring little formal training and appears to be feasible, acceptable and safe in people with Inflammatory Arthritis.

The arthritis research team at the School of Allied Health, University of Limerick recently undertook a pilot randomised controlled trial exploring the potential of a walking-based exercise intervention to improve sleep in people with inflammatory ar-

*“sleep has a role to play in our immune system”*

thritis, in order inform the development of a fully powered trial. This intervention was found to be feasible, safe and highly acceptable to study participants, with those participants in the exercise group reporting significant improvements in sleep duration, sleep quality and mental health compared to the control group.

The simple summaries and outcome measures provided by this pilot trial have allowed us to determine sample size calculations for a future larger clinical trial to improve sleep in people with Inflammatory Arthritis. These sample sizes will help us a future multi-centre randomised controlled trial which we will be undertaking, so sincere thanks go to those participants who have given up their time to date.

*Seán McKenna is a Chartered Physiotherapist & Irish Research Council postgraduate scholar studying towards his PhD at the University of Limerick*

## Patient Involvement Opportunities

by Emma Dorris

Public involvement in research means members of the public are actively involved in research projects and in research organisations. It is a two-way dialogue. Research is carried out *with* members of the public rather than *to, about or for them*.



### ◇ Rare Rheumatic Disease: Behcet's Disease

Behcet's disease/ Behcet's syndrome (also called Mucocutaneous Ulceration Syndrome). We recently received funding from the National Children's Research Centre to study familial Behcet's-like disease.

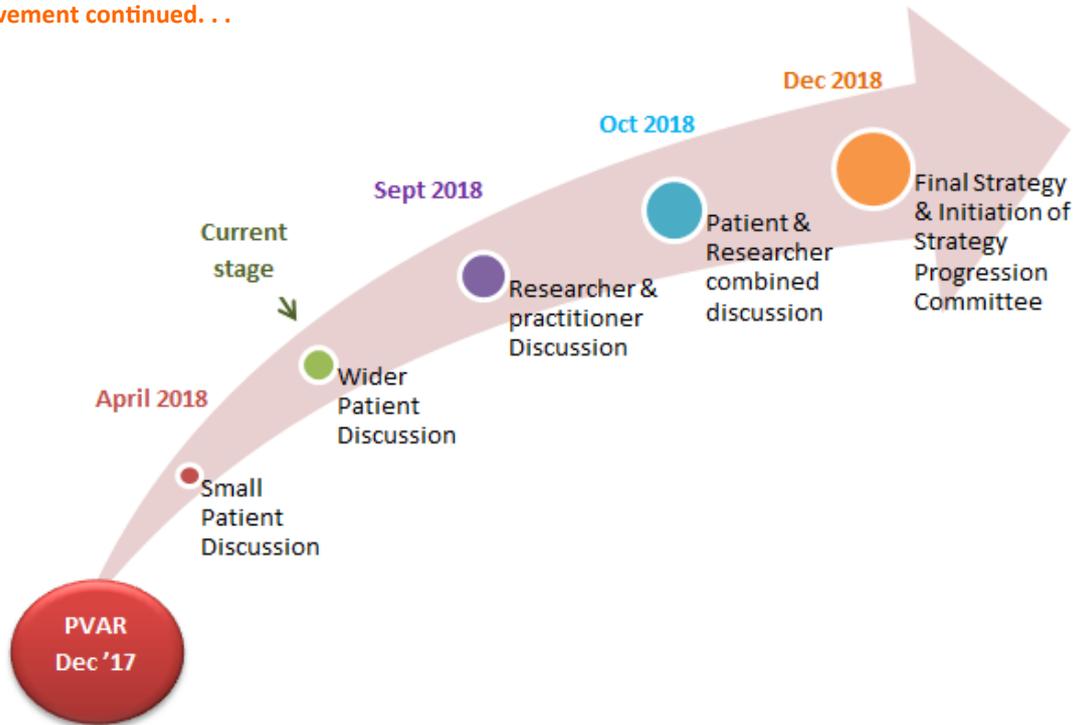
We are inviting people with experience of Behcet's disease (including those with resolved disease or family members with disease) to join us as patient advisors on this study.

This would involve approx. 3-4 meetings per year, as well as phone and email contribution. We particularly keen to hear from people who experienced early onset (before age 18) of disease.

Contact at [patientvoicearthritis@ucd.ie](mailto:patientvoicearthritis@ucd.ie) or (01) 7166809.

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Patient Involvement continued. . .



**Patient-Centred Strategy Development for Fibromyalgia Research arising from The Patient Voice in Arthritis Research.** Design of strategy with patient involvement from conception and through all stages of research cycle.

◇ **Research Strategy for Fibromyalgia**

We are developing a 5-year patient-centred research strategy for fibromyalgia. Patients have been involved in this from conception. We had our first meeting with patients in May to develop our strategy. We have a follow-up survey for those who were not able to attend the meeting. This will be released on July 13<sup>th</sup> and open until August 3<sup>rd</sup>.

Contact: [patientvoicearthritis@ucd.ie](mailto:patientvoicearthritis@ucd.ie) (preferred) or (01) 7166809 (please leave a message).

◇ **Date for Your Diaries: 02 Nov 2018, UCD. Research Conference Open to the Public**

We are hosting a national research conference on 02 Nov 2018 in UCD titled *Facilitating a collaborative approach to arthritis and rheumatic disease research*. Open to the public, all speakers will conduct their presentations in Plain English. Workshops are designed to foster effective public involvement in research.

To register: <https://www.eventbrite.com/e/facilitating-a-collaborative-approach-to-arthritis-and-rheumatic-disease-research-tickets-47387579526>

To become a mentor of Plain English for our speakers: [patientvoicearthritis@ucd.ie](mailto:patientvoicearthritis@ucd.ie), (01) 716 6809

◇ **Patient Mentors: UCD Conway Institute Festival of Research**

Can you help an early career researcher explain their research in Plain English? We are looking for patients from a range of chronic health conditions (including rheumatic disease, depression, cancer, inflammatory bowel disease, kidney disease, diabetes, lung disease, eye disease). UCD Conway Institute invites you to act as a patient educator to junior researchers.

You must be available to attend UCD Conway two mornings in September. You will be invited to the Conway Institute's Festival of Research on 03 October 2018.

Contact: [Conway.festival@ucd.ie](mailto:Conway.festival@ucd.ie), (01) 7166809, Twitter: @UCD\_Conway

◇ **Paediatric Rheumatology: Strategy and Funding Development**

One of our researchers is applying for funding into paediatric rheumatology and would like insight around research strategy, design and communications. If you experience with paediatric rheumatology services, especially in rare rheumatic disease, please contact us by July 20<sup>th</sup> 2018 at [patientvoicearthritis@ucd.ie](mailto:patientvoicearthritis@ucd.ie) or (01) 7166809. Under 18s, please have permission from your parent or guardian.

## Highlights from the Inaugural Fibromyalgia Health and Wellbeing Summit by Stacey Grealis



The Inaugural Fibromyalgia Health and Wellbeing Summit was jointly organised by Arthritis Ireland and Fibromyalgia Ireland on World Fibromyalgia Day 12<sup>th</sup> May 2018. The Summit was an occasion for over 300 people to connect and learn how to manage Fibromyalgia.

Ms. Orla Gilheany gave a moving, impacting and positive account of her patient journey from the age of 13 and how she has participated in all of life's opportunities despite living with chronic pain "I am, you are, we are superhumans". Ms. Rachel Lynch from Fibromyalgia Ireland gave a masterclass in how to manage Fibromyalgia – topics covered were stress management, pain cycle, sleep hygiene, diet, meditation and online resources.

The Keynote address: Fibromyalgia - from fiction to fact and to the future was given by Prof. Andrea L. Nicol Department of Anesthesiology, University of Kansas School of Medicine.

Fibromyalgia is a chronic pain syndrome with widespread pain and associated symptoms of mood alterations, sleep disruption and cognitive difficulties. It is second to Arthritis as a "rheumatologic" condition and is extremely common with incidences between 2 - 8 % of the population. Patients may have lifelong histories of chronic pain throughout their body. Fibromyalgia typically begins in adolescence or in young adulthood but can develop at any age. Prevalence is higher in women than men with a 6:1 ratio.

Research shows if you have first-degree relatives with a history of Fibromyalgia

you may be up to 8 times more likely to have fibromyalgia or chronic pain. Twin studies suggest the risk of developing Fibromyalgia is 50% genetic and 50% environmental. "Secondary fibromyalgia" occurs in 10-30% of patients with other rheumatic disorders. Other fibromyalgia risk factors include stress, severe acute pain episodes from accidents, infections like Lyme disease, viral hepatitis, lifetime history of trauma or a

*"The higher the volume control setting, the more pain we will experience, irrespective of peripheral nociceptive input"*

chaotic home environment.

Prof. Nicol focused in on Centralized pain syndromes with distinct adaptations within the central nervous system (CNS), which amplifies the peripheral pain signal input and generates the enhanced perception of pain. She used a brilliant analogy using guitars and amplifiers from Prof. Daniel Clauw. The higher the volume control setting, the more pain we will experience, irrespective of peripheral nociceptive input. [Nociception is the response of the sensory nervous system to certain harmful or potentially harmful stimuli]. Therefore, a person with Fibromyalgia has

the volume knob turned up way too high. It is important for surgeons and physicians to understand centralized pain as people with Fibromyalgia have a tendency to fail in response to opioids or certain surgeries performed to reduce pain.

Numerous treatments, including tricyclics, serotonin norepinephrine reuptake inhibitors and gabapentinoids were discussed. She also highlighted the importance of nonpharmacological therapies including patient education, physiotherapy, exercise and cognitive behavioral therapy.

Finding a physician who can diagnose, provide referrals and treat

Fibromyalgia is important. She advised that all physicians should use the 2010 the American College of Rheumatology Fibromyalgia survey criteria to determine your "Fibromyalgianess".

Other key tips were to maintain a positive attitude, realize that the journey to improvement takes time, find a support network and keep motivated to reduce disability.

The videos from morning session with key note speakers can be accessed at: [www.arthritisireland.ie/go/information/fibromyalgia\\_health\\_wellbeing\\_summit](http://www.arthritisireland.ie/go/information/fibromyalgia_health_wellbeing_summit)



**FibroIreland**  
Awareness • Assistance • Action



**Arthritis Ireland**  
Little Things make a Big Difference



# Your Exercise Questions Answered

by Chartered Physiotherapists Rheumatology

## Psoriatic Arthritis.

**Q:** *I would love to embark on a fitness programme but I'm afraid that I might do damage (my knee troubles me quite a bit). Is it possible to embark on a fitness programme under the supervision of a physio? How would I access this?*

**A:** Well done on making the decision to start exercising. There is strong evidence that exercise is helpful for joint pain. A chartered physiotherapist will be able to prescribe an appropriate exercise program for you and guide you on pacing to gradually increase your fitness. A list of private chartered physiotherapists in your area is available on [www.iscp.ie](http://www.iscp.ie). You don't need a referral, just contact to make an appointment. If you have a medical card your GP should be able to refer you to see a physiotherapist in a primary care center.

**Q:** *What types of exercise are particularly good (i.e. low impact)? I have heard that Nordic walking is particularly good.*

**A:** Nordic walking is performed with specially designed walking poles similar to ski poles. It is a very popular form of fitness in some countries. There is no strong evidence that the use of these poles unload forces through the knee joints compared with ordinary walking.

You could consider lower impact types of fitness exercises including pool based exercise such as swimming or brisk walking in the water or water based classes. You could also try using an exercise bike if comfortable for your knee. It is recommended that we get a half hour of fitness exercises 5 days a week but start small and build slowly. Aim to be a little out of breath or lightly sweating with your fitness work.

**Q:** *Should I do strengthening exercise as well as cardio?*

**A:** Yes you should also do strengthening exercises. There is evidence that strengthening your quadriceps (front of thigh) muscle and gluts (side and back of hip) muscles is helpful for knee pain. Aim for muscle fatigue rather than joint pain with your strengthening exercises. A chartered physiotherapist will be able to guide you on the most appropriate strengthening exercise for you.

## Osteoarthritis and OA/ Osteoporosis

**Q:** *Information on Better Bones Programme: supposed to be a good exercise programme for flexibility and balance?*

**A:** The Better Bones type class is designed specifically for over 55s. These classes are aimed at those who already know they have a diagnosis of osteoporosis or know they are at risk.

The classes are run by instructors (usually chartered physiotherapists in Ireland) specifically trained to recommend exercises for this particular client group.

Exercises will specifically target strengthening and balance as improved balance and strength result in reduced risk of falling and fractures. The sessions are

also educational and provide information about bone health in general and benefits of exercise.

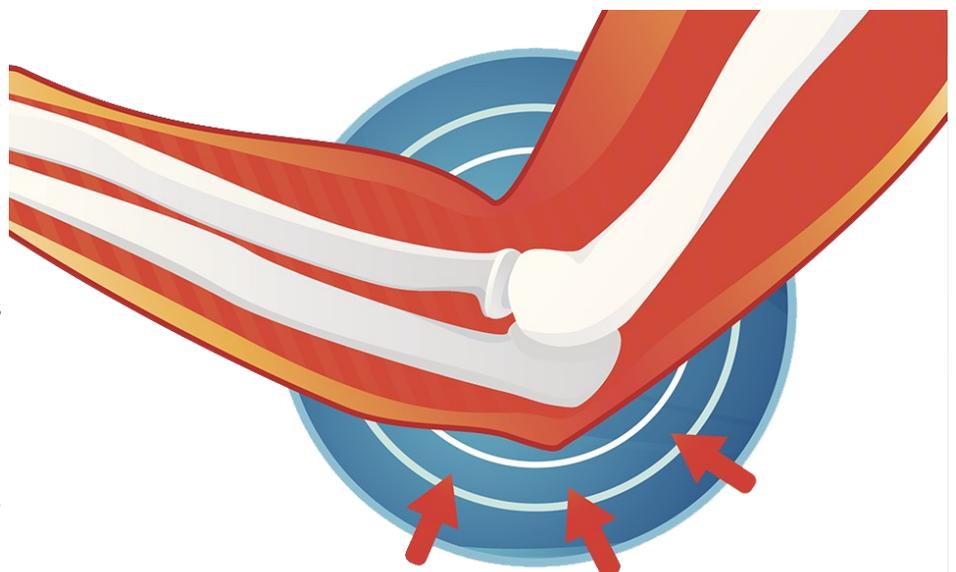
Although you will work with a group, you will exercise at your own pace doing the exercises that have been tailored to suit you.

There is a Better Bones class run in UCD and details are available on their website or they can be contacted at [Betterbones@ucd.ie](mailto:Betterbones@ucd.ie)

There are also a 'Staying fit for the future' balance and exercise classes being run as a pilot in Cork over the coming months. Details available on 021 4347096. These classes are run at various locations in the community by exercise instructors who have been trained by chartered physiotherapists.

**Q:** *What is the value of being involved in Exercise programmes run by Registered Physiotherapists, rather than exercise class teachers. How do I access these?*

**A:** A Chartered Physiotherapist is a university graduate with hospital-based training who has comprehensive knowledge of how the body works, along with specialist training in the diagnosis and treatment of muscle and joint pain.



## Your Exercise Questions Answered

When you choose a physiotherapist who is a member of the Irish Society of Chartered physiotherapists (ISCP), you'll enjoy the peace of mind of knowing that they are a part of Ireland's only professional body within its field.

It is your guarantee that they have been trained to the highest academic and professional standards – and also that they continue to keep abreast of emerging trends and developments through a programme of Continuous Professional Development.

The Society is the only association in Ireland recognised by the World Confederation of Physical Therapy. It provides a strong, unified voice for the profession, and regularly speaks out on issues involving the role and responsibilities of physiotherapists – either within private practice or as part of the national health system.

Choosing a Chartered Physiotherapist assures you that your chosen practitioner is fully committed to upholding the highest standards of medical and ethical standards.

You will also have recourse to a strong representative organisation should you have any issues with your chosen physiotherapist. The Irish Society of Chartered Physiotherapists have a highly robust recourse procedure in place, and any grievance you may have will be dealt with respectfully and speedily.

Information available on the Irish Society of Chartered Physiotherapists' website [www.iscp.ie](http://www.iscp.ie) or telephone 01 402 21 48.

**Q:** *Any advice for people getting START-ED on exercising?*

**A:** First, find something that you enjoy doing! The key to success of exercising is to make it part of your daily or weekly routine, so choose something that you benefit from on a mental and emotional level as well as a physical level. When you enjoy it, you're more likely to stick with it.

If you have an injury or you suffer from

any significant health problems, for example heart or breathing conditions, speak to your GP before getting started.

Choose clothing and footwear suitable for your choice of exercise.

Like the victor in the hare and the tortoise fable, start low and go slow: if you're taking up a new activity, begin with a small amount of exercise: even 5-10 minutes at a time is a good start. You can then increase the time spent exercising in small amounts, allowing enough time for your body to adjust to the new level before adding more activity.

Always build in time at the start and end to warm up and cool down to give your joints and muscles time to adjust to exercising. Once you finish, it's a good idea to include some simple stretches of the muscles you were working.

Some soreness or aching in the muscles that were exercised can occasionally occur after a workout. It is known as DOMS, delayed onset muscle soreness. This is especially true in the first 4 to 6 weeks of starting a new exercise regime. As your body adapts to the demands of the new activity this will subside.

Finally, remember that doing something is better than doing nothing!

**Q:** *Are there specialists in exercise for those with advanced OA (failed replacements), where can I access these?*

**A:** On the Irish Society of Chartered Physiotherapists' website [www.iscp.ie](http://www.iscp.ie) or telephone 01 402 21 48.

or

Arthritis Ireland have information on exercise programmes tailored for people with arthritis. [www.arthritisireland.ie](http://www.arthritisireland.ie) or telephone 1890 252846.

### General Questions

**Q:** *Should I avoid exercise during a flare or push through?*

**A:** Some people with certain forms

of arthritis, such as rheumatoid arthritis or ankylosing spondylitis, experience what is known as a flare-up – a time when inflammation is suddenly more active and pain, swelling and stiffness get worse. Flare-ups can last from a couple of days up to a few weeks.

Heat or ice can be helpful for flared joints and linking with your doctor or pharmacist will ensure that you're on the optimal medication to address the increase severity in symptoms, if required.

It is important to keep doing gentle exercises during a flare-up, especially range of movement exercises. Doing this daily within your pain-free range may even decrease and shorten the flare-up, however, cut down on the rest of the routine and cut out the more strenuous exercises.

If only one joint is affected by the flare, try adapting the exercises to give the rest of the body a good workout while not aggravating the affected joint. You can also do an activity with a lower impact, for example swimming or stationary cycling can be substituted for walking when you have hip, knee or ankle pain

As the flare-up improves, slowly build up the routine again. Don't pick up at the same level as before as some physical fitness may have been lost, especially if the flare-up lasted for some time.

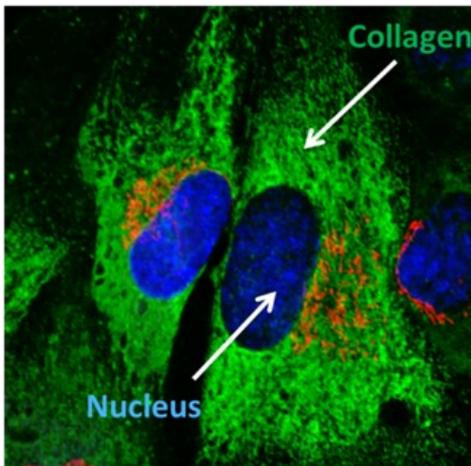
**Q:** *Where can I access reliable exercise information on-line?*

[www.arthritisireland.ie](http://www.arthritisireland.ie)

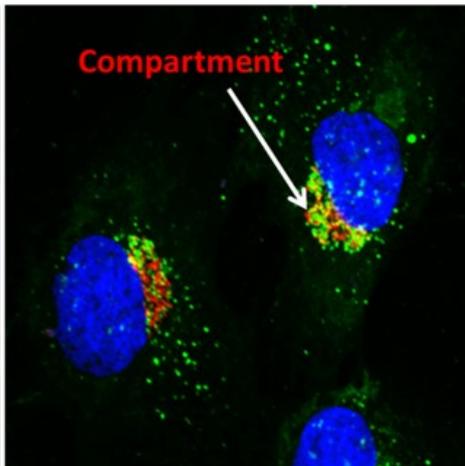
*Chartered Physiotherapists Rheumatology are a specialist group of The Irish Society of Chartered Physiotherapists; the national, professional body of Chartered Physiotherapists in Ireland*

## Cellfies: images of research

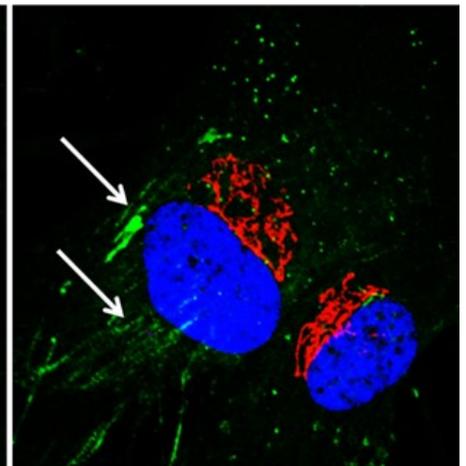
by Niamh Morgan



2 cells, each with a nucleus (blue). Collagen (green) is made in a compartment that fills the cell



Over time, collagen is transported to another compartment (red)



Finally, collagen is transported from the compartment to the outside of the cell (seen as green fibres)

### Using microscopy to understand bone disease

Collagen is the basic protein that forms the bone structure and helps in rebuilding bones and maintaining the quality and quantity of bone mass. Our cells (like our bodies) are made up of compartments (which are like organs), and these compartments have specific functions in making and modifying proteins such as collagen. When bone is forming or rebuilding, specialised cells make collagen, transport it to specific compart-

ments in the cell and release it into the space surrounding the cell.

In some diseases, the machinery required to transport collagen doesn't work and this results in a block of collagen inside the cell. Collagen does not reach the outside of the cell where it is needed to form good quality bones and this can cause skeletal deformities and bone disease.

In the lab we can stain collagen with a coloured marker and visualise its transport from where it is made in the cell to the outside of the cell using a mi-

croscope. We can time the rate of collagen transport in normal cells and in disease cells (i.e. cells from patients with a bone disease). If we see a change in the rate of collagen transport in disease cells, this is likely the cause of the skeletal deformities seen in patients. With this knowledge we can come up with therapeutic strategies to combat this in patients.

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### Ask the Expert

Do you have questions about sleep, mood or mental health in relation to rheumatic disease? Send your questions to [patientvoicearthritis@ucd.ie](mailto:patientvoicearthritis@ucd.ie) and we'll answer them in our next edition.



*“Nobody should feel that sleeplessness is something they simply have to endure”*

Seán McKenna, EULAR Congress 2018

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