

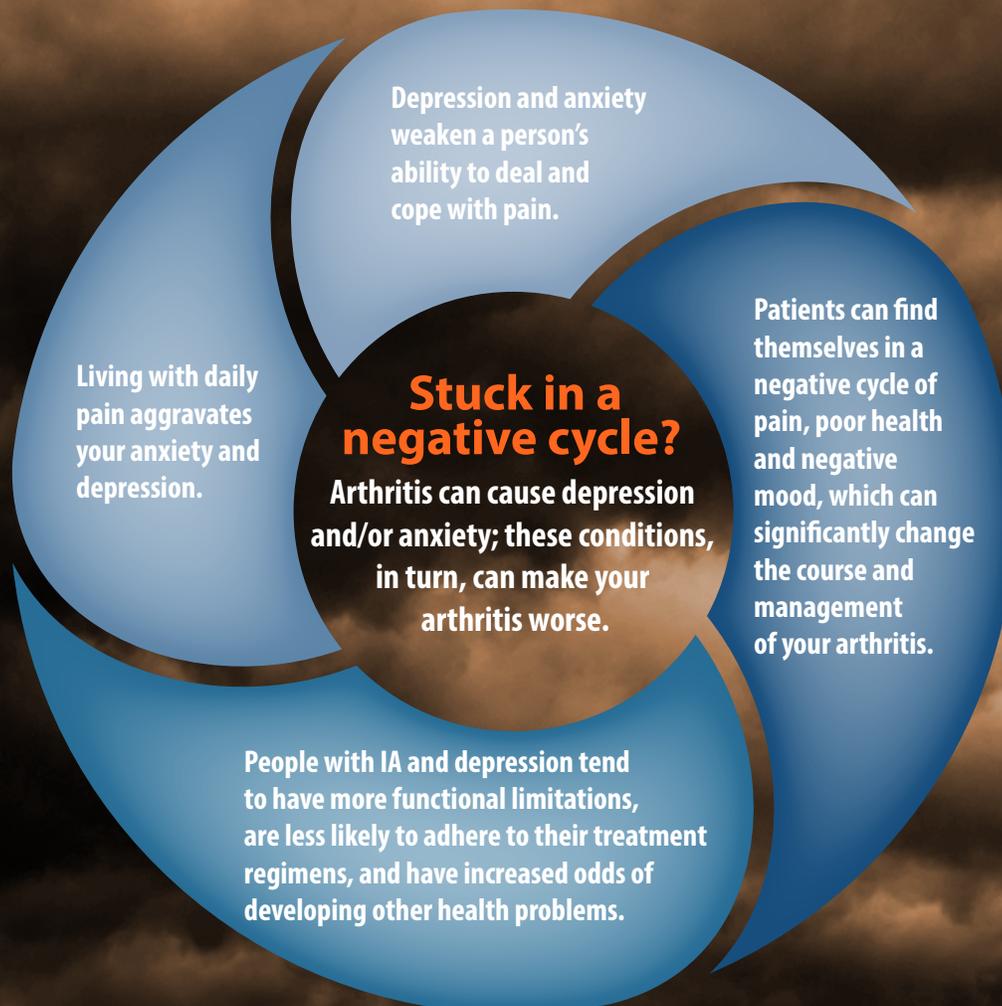
Mental health and arthritis: a complex relationship

In this issue of JointHealth™ insight, we focus on the important relationship between mental health and arthritis. People with inflammatory arthritis (IA) are more likely to experience mental health conditions such as depression, anxiety and “brain fog” than the general population. Recent research suggests there is a complex relationship between these conditions and arthritis, and the impacts are profound. People with osteoarthritis (OA) may also experience depression as a result of new and significant physical limitations. There are effective ways that people with arthritis can manage their mental health.

This issue will cover the following:

- Relationships between depression, “brain fog” and inflammatory arthritis
- Burden of depression
- Recognizing and managing depression and anxiety
- Prevent depression and anxiety
- Love, sex and arthritis*

*Please be advised that the content in this section contain graphics of “joint friendly” positions during sex and may not be appropriate for you or others in your household. The graphics are excerpted from the book, “Rheumatoid Arthritis: Plan to Win”, by Cheryl Koehn, Dr. John Esdaile and Taysha Palmer published by Oxford University Press, 2002.



Depression and anxiety, “brain fog”, and inflammatory arthritis

People living with inflammatory arthritis (IA), such as rheumatoid arthritis (RA), spondyloarthritis, psoriatic arthritis and lupus experience physical and emotional challenges. Research shows that people with IA are more likely to experience depression and/or anxiety than the general population; people with RA are 17-20% more likely to develop depression.

One theory is that mental health disorders are an outcome of the pain and disability associated with arthritis. For example, new limitations caused by IA can bring significant changes to one’s life, work and relationships, leading to anxiety and depression.

We know that pain and disability are linked to depression in arthritis, but there is now growing evidence that inflammation also plays a role. For example, researchers at the University of Glasgow found that chronic inflammation from IA, which affects joints and organs, such as the eyes, skin, and the brain, may also be related to mental health disorders like depression¹.

“Brain fog” is another symptom of IA. “Brain fog” can create episodes of confusion, disorientation and frustration. Patients are unable to think clearly, concentrate and have problems with memory.

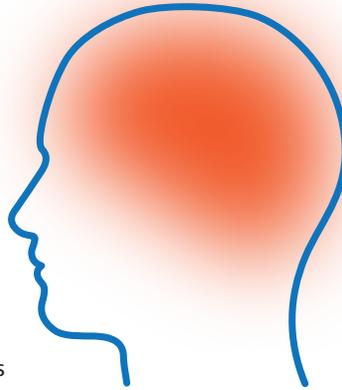
Results from a 2018 study published in Nature Communications linked RA inflammation with how messages about your inflammation are transmitted between your brain and your central nervous system².

Researchers believe these brain changes are the reason behind fatigue, pain, and an impaired ability to think.

Arthritis Consumer Experts is a partner in a study on preventing complications related to inflammation such as skin, joint and bowel conditions. The PRECISION research project is expected to end this year and could support more than 5 million Canadians to live better, longer lives, and has potential to save money being spent on treating complications. To learn more about the project, visit arthritisresearch.ca.

Another useful tool developed by Arthritis Research Canada is the *Arthritis Health Journal*, which uses the Patient Health Questionnaire 9

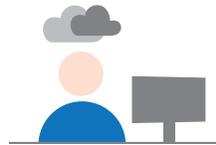
(PHQ-9) scale to screen for depression. It does not replace an evaluation by a doctor, but can help identify symptoms of depression. Be one of the first people to use the *Arthritis Health Journal* by participating in the [pilot study](#).



The burden of depression

Optimum effectiveness

With depression



On the effectiveness of biologic medications...

Biologics are an important treatment option for different forms of inflammatory arthritis. A 2018 [study](#) published in *Rheumatology* found that experiencing symptoms of depression at the start of biologics treatment (at baseline) is associated with reduced treatment response, and over time, impacts change in disease activity³. The researchers found that depression at baseline contributes to approximately 30% reduced odds of good biologics treatment response in RA. Furthermore, patients who reported a history of depression or experienced symptoms of depression were more likely to switch biologics. The study recommends patients should receive repeated screening and management of their mental disorder from their rheumatologist and rheumatology nurse.

At work...

A study conducted at West Virginia University last year found that the people who had both RA and depression experienced more work-related challenges and lower productivity than those living with only RA⁴. This means that employees with RA and depression were more likely to miss days of work, be unemployed, or experience functional limitations at work compared to those in the latter group. People in the former group had significantly higher annual healthcare expenditures (\$14,752 versus \$10,541).

On Lifestyle...

Arthritis pain and depression, compounded by Inflammation and fatigue, are instant life changing conditions. All of these health challenges may cause you to engage less in physical and social activity, feel isolated, and experience poor sleep quality. These negative changes in your lifestyle can increase your pain and dampen your overall mood – making your depression worse.

- 1 Nerurker L, Siebert S, et al. Rheumatoid arthritis and depression: an inflammatory perspective. *The Lancet Psychiatry*. Volume 6, Issue 2, P164-173. October, 2018. DOI: [https://doi.org/10.1016/S2215-0366\(18\)30255-4](https://doi.org/10.1016/S2215-0366(18)30255-4)
- 2 Scherpf A, Kaplan c, et al. A multi-modal MRI study of the central response to inflammation in rheumatoid arthritis. *Nature Communications*. Volume 9, Issue 1, P2243. June, 2018. DOI <https://doi.org/10.1038/s41467-018-04648-0>
- 3 Matcham F, Davis R, et al. The relationship between depression and biologic treatment response in rheumatoid arthritis: An analysis of the British Society for Rheumatology Biologics Register. *Rheumatology*. Volume 57, Issue 5, P835-843. May, 2018. DOI <https://www.ncbi.nlm.nih.gov/pubmed/29447376>
- 4 Deb A, Dwibedi N, et al. Burden of Depression among Working-Age Adults with Rheumatoid Arthritis. *Arthritis*. June, 2018. <https://doi.org/10.1155/2018/8463632>

Recognizing and managing depression and anxiety

Depression and anxiety in arthritis patients are underdiagnosed and many of those affected don't receive mental health treatment, which could potentially help with their arthritis related symptoms. There are many ways to prevent and manage depression and anxiety. It is important to understand that it is not your fault you are depressed and that you are not alone in your disease journey. One step in self-care for patients is to be aware of the signs of depression:



Here are some ways to prevent or manage depression and anxiety:



Love, sex, and arthritis

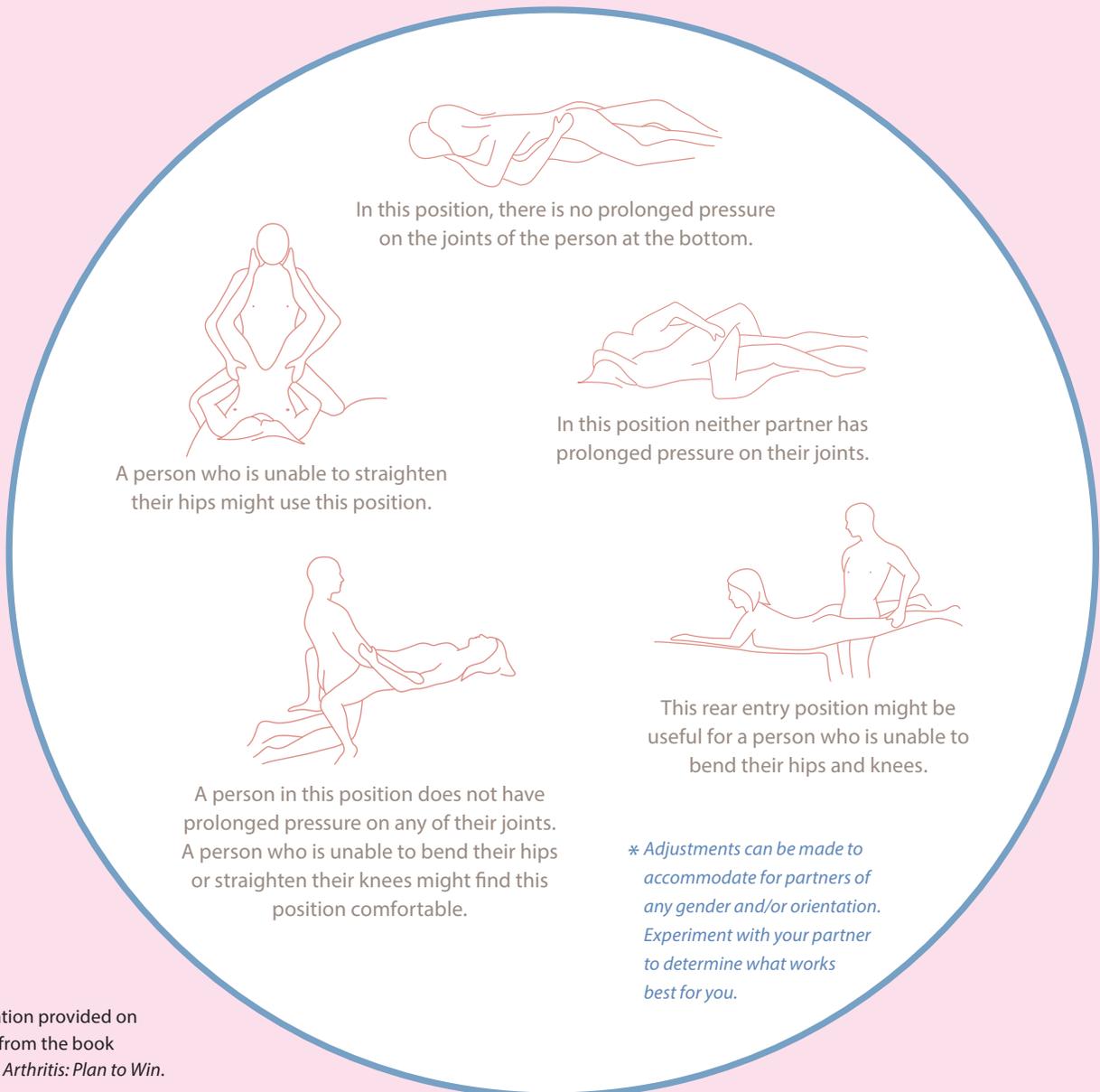
Emotional and physiological symptoms of arthritis can impact your relationships with family, friends and romantic or sexual partners.

“From my perspective, chronic pain suffered by one partner definitely ends up impacting the lives of both partners, so sharing your feelings, concerns, and desires is a really positive first step to enjoying your sex life again.” An IA patient

The benefits of sex and physical contact (like hugging) include improving bonds and building trust between people, helping to reduce pain, promoting sleep, reducing stress, boosting immunity, burning calories, improving self-esteem and heart health.

Below is an excerpt from *Rheumatoid Arthritis: Plan to Win* with tips to manage arthritis symptoms during sexual activity or intimacy:

- Talk to your partner about what you like and don't like, what hurts and doesn't hurt. Be open about how both of you feel and come up with solutions that work for both of you. If you are finding these conversations difficult, you may benefit from seeing a sex therapist.
- Time your medication accordingly if you think it may impact your physical ability and mental mindset to partake in sexual activities.
- Communicate your daily level of pain and fatigue by using a number scale.
- Try different sex positions. Use well-placed padding, pillows, or wedge-shaped pillows to help ease joint pain and provide more comfortable position options.



In this position, there is no prolonged pressure on the joints of the person at the bottom.

A person who is unable to straighten their hips might use this position.

In this position neither partner has prolonged pressure on their joints.

A person in this position does not have prolonged pressure on any of their joints. A person who is unable to bend their hips or straighten their knees might find this position comfortable.

This rear entry position might be useful for a person who is unable to bend their hips and knees.

** Adjustments can be made to accommodate for partners of any gender and/or orientation. Experiment with your partner to determine what works best for you.*

The information provided on this page is from the book *Rheumatoid Arthritis: Plan to Win*.

Koehn C, Palmer T, John E.
Rheumatoid Arthritis: Plan to Win.
Oxford University Press. 2002. P154-170.

Arthritis Consumer Experts (ACE)

Who we are

Arthritis Consumer Experts (ACE) operates as a non-profit and provides free research based education and information to Canadians with arthritis. We help (em)power people living with all forms of arthritis to take control of their disease and to take action in healthcare and research decision making. ACE activities are guided by its members and led by people with arthritis, scientific and medical experts on the ACE Advisory Board. To learn more about ACE, visit www.joinhealth.org

Guiding Principles

Healthcare is a human right. Those in healthcare, especially those who stand to gain from the ill health of others, have a moral responsibility to examine what they do, its long-term consequences and to ensure that all may benefit. The support of this should be shared by government, citizens, and non-profit and for-profit organizations. This is not only equitable, but is the best means to balance the influence of any specific constituency and a practical necessity. Any amount remaining from our annual budget at year end remains with ACE and is used to support the following year's core programs to continue helping Canadians living with arthritis.

For its past 20 years, ACE has consistently honored a commitment to its members and subscribers, academic and healthcare professional colleagues, collaborators, government and the public that its work is free from the influence of its funders.

To inform ACE employees and our stakeholders, members, subscribers that we will operate our organization with integrity and abide by the highest standards of lawful and ethical behaviour, ACE has adopted this strict set of guiding principles:

- ACE requests grants from private and public organizations to support its core program and plans and allocates those funds free from influence;
- ACE discloses all funding sources in all its activities;
- ACE does not promote any "brand", product or program on any of its materials or its website, or during any of its educational programs or activities.
- ACE employees do not receive equity interest or personal "in-kind" support of any kind from any health-related organization;
- ACE identifies the source of all materials or documents used;
- ACE develops positions on health policy, products or services in collaboration with people living with arthritis, academic research community, health care providers and governments free from concern or constraint of its funders or other organizations; ACE employees do not engage in personal activities with its funders;
- Cheryl Koehn does not own stock or any financial interest in any of its private or public funders.

Thanks

ACE thanks Arthritis Research Canada (ARC) for its scientific review of all ACE and JointHealth™ materials.



Disclosures

Over the past 12 months, ACE received grants-in-aid from: Arthritis Research Canada, Canadian Biosimilars Forum, Canadian Institutes of Health Research, Canadian Rheumatology Association, Eli Lilly Canada, Hoffman-La Roche Canada Ltd., KT Canada, Merck Canada, Novartis, Pfizer Canada, Sandoz Canada, Sanofi Canada, St. Paul's Hospital (Vancouver), UCB Canada, and the University of British Columbia.

ACE also received unsolicited donations from its community members (people with arthritis) across Canada.

ACE thanks funders for their support to help the nearly 6 million Canadians living with osteoarthritis, rheumatoid arthritis, psoriatic arthritis, ankylosing spondylitis and the many other forms of the disease.

Disclaimer

The material contained in this publication should not be relied on to suggest a course of treatment for a particular individual or as a substitute for consultation with qualified health professionals who are familiar with your individual medical needs. Please contact your physician for your own health care related questions.

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ACE does not promote any "brand", product or program on any of its materials or its website, or during any of its educational programs or activities.

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