

*So, your concern is...*

## Arthritis

The definition of arthritis may be relatively simple – inflammation of the joint – but the disease actually consists of more than 100 different conditions. They range from mild forms of tendonitis or “tennis elbow” to forms like rheumatoid arthritis that can cripple the whole body. Fibromyalgia, lupus and gout are also forms of the disease. While many older people do have arthritis, it can strike at any age.<sup>1</sup>

Inflammation is involved in many forms of arthritis. Joint inflammation can happen for a variety of reasons including a broken bone, infection, an autoimmune disease or just general “wear and tear” on joints. Inflammation is the body’s natural response to injury and leads to redness, swelling, heat and pain in the affected area. With some injuries or diseases, the inflammation does not go away or the wound cannot be healed and this can lead to long-term pain and in the case of rheumatoid arthritis, debilitating deformities.<sup>2</sup>

So what about diet and arthritis? Basically most theories about food causing, curing or even affecting arthritis have not yet been proven.<sup>3</sup> When it comes to the food you eat, the best things you can do to help prevent or lessen the effects of arthritis are being at a healthy weight and eating a variety of nutritious foods, including fresh mushrooms.

### ***Fresh Mushrooms Can Help!***

#### Adding the Antioxidants

- Fresh mushrooms contain significant levels of l-ergothioneine, which acts as an antioxidant.<sup>4</sup>
- Ergothioneine doesn’t break down when it’s heated which means you’ll still get the benefit of this powerful phytochemical whether you’re enjoying mushrooms raw or cooked.<sup>5</sup>

#### Boosting Immunity

- Beta-glucans, a type of carbohydrate found in mushrooms, has potential anti-inflammatory activity, which may help protect the body against disease.<sup>6</sup>
- Mushroom extracts may also stimulate different cells of the immune system.<sup>7</sup>

#### Watch the Weight

- Fresh mushrooms are a perfect choice for weight management, since they have high water content, are low in fat and contain some fibre:- three factors that will help you feel full with fewer calories. That means less room for calorie-laden foods.
- Being at a healthy weight may lessen the strain on painful joints.

## ***Mushrooms Make a Difference***<sup>8</sup>

- Sprinkle ½ cup sliced meaty portabella mushrooms onto pizza instead of pepperoni  
Benefit: - save 473 calories, 43 grams of fat and 15 grams of saturated fat
- Substitute 1 cup sliced fresh button or crimini mushrooms for ½ cup shredded cheddar cheese in egg dishes  
Benefit: - save 213 calories, 18 grams of fat and 11 grams of saturated fat
- Toss ½ cup sliced crimini mushrooms into pasta sauces instead of lean ground beef  
Benefit: - save 297 calories, 19 grams of fat and 7 grams of saturated fat

### ***Make it with Mushrooms:***

- Add savoury depth to chicken and turkey loaf with chopped, sautéed crimini or portabella mushrooms.
- Sauté a medley of fresh mushrooms in a little olive oil, butter, balsamic vinegar and seasonings. Spread on top of a wheel of brie for a spectacular party appetizer.
- Fresh mushrooms are the perfect addition to ratatouille – a combination of eggplant, tomato, onions, bell peppers, zucchini and garlic simmered in olive oil.
- Give plain old chicken-pot-pie some woody flavor with shiitake or crimini mushrooms.
- Perk up steamed green beans with the addition of lightly sautéed white button mushrooms.

### ***Recipe Suggestion:***

#### **[Mushroom Chicken and Leek Pot Pie](#)**

*For more mushroom nutrition information, great tips and delicious recipes visit [www.mushrooms.ca](http://www.mushrooms.ca).*

*For more about arthritis visit the Arthritis Society of Canada at [www.arthritis.ca](http://www.arthritis.ca).*

Disclaimer: The provided information is not meant to replace the medical counsel of your Doctor. If you have further questions please consult with your Doctor or Registered Dietitian.

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<sup>1</sup> The Arthritis Society website at [www.arthritis.ca](http://www.arthritis.ca).

<sup>2</sup> U.S. National Library of Medicine Medline Plus. Medical Encyclopedia: Arthritis at <http://www.nlm.nih.gov/medlineplus/ency/article/001243.htm>.

<sup>3</sup> The Arthritis Society website at <http://www.arthritis.ca/tips%20for%20living/eating%20healthy/diet%20cause/default.asp?s=1>.

<sup>4</sup> Dubost NJ, Beelman RB, Peterson D and Royse DJ. Identification and Quantification of Ergothioneine in Cultivated Mushrooms by Liquid Chromatography-Mass Spectroscopy. *Int J Med Mushr* 2006;8(3):215-222.

<sup>5</sup> Ibid.

<sup>6</sup> Pacheco-Sanchez M, Boutin Y, Angers P, Gosselin A and Tweddell RJ. A bioactive (1-3), (1-4)-beta-D-glucan from *Collybia dryophila* and other mushrooms. *Mycologia* 2006;98(2):180-185.

<sup>7</sup> Lull C, Wichers HJ and Savelkoul HJF. Antiinflammatory and Immunomodulating Properties of Fungal Metabolites. *Mediators of Inflammation* 2005;2:63-80.

<sup>8</sup> USDA National Nutrient Database for Standard Reference, Release 19, 2006 at <http://www.ars.usda.gov/ba/bhnrc/ndl>.