

EVERYDAY MYSTERIES

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Question:

What causes the noise when you crack a joint?

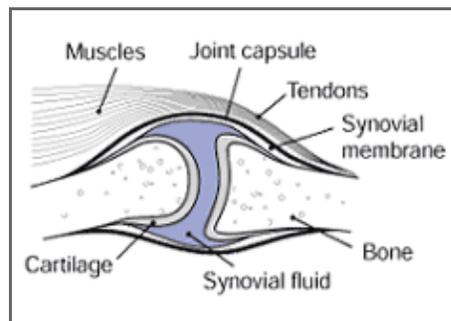
Answer:

Escaping gases, movement and rough surfaces.

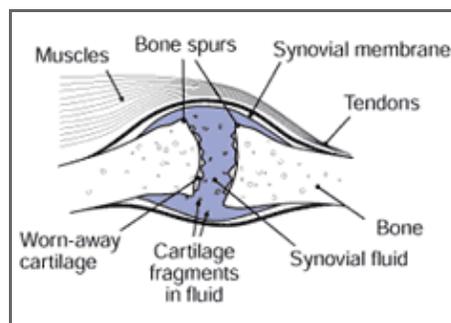
Your joints can make a variety of sounds: popping, cracking, grinding, and snapping. The joints that "crack" are the knuckles, knees, ankles, back, and neck. There are different reasons why these joints "sound off".

- **Escaping gases:** Scientists explain that synovial fluid present in your joints acts as a lubricant. The fluid contains the gases oxygen, nitrogen, and carbon dioxide. When you pop or crack a joint, you stretch the joint capsule. Gas is rapidly released, which forms bubbles. In order to crack the same knuckle again, you have to wait until the gases return to the synovial fluid.
- **Movement of joints, tendons and ligaments:** When a joint moves, the tendon's position changes and moves slightly out of place. You may hear a snapping sound as the tendon returns to its original position. In addition, your ligaments may tighten as you move your joints. This commonly occurs in your knee or ankle, and can make a cracking sound.
- **Rough surfaces:** Arthritic joints make sounds caused by the loss of smooth cartilage and the roughness of the joint surface.

Is joint cracking harmful? If you are feeling pain when your joints pop, than you should seek a health care professional. In terms of knuckle cracking, some studies show that knuckle cracking does not cause serious harm. Other studies show that repetitive knuckle cracking can do some damage to the soft tissue of the joint. It may also lead to a weak grip and a swelling hand.



A Healthy Joint. In a healthy joint, the bones are encased in smooth cartilage. Together, they are protected by a joint capsule lined with a synovial membrane that produces synovial fluid. The capsule and fluid protect the cartilage, muscles and connective tissues.



An Osteoarthritic Joint. With osteoarthritis, the cartilage becomes worn away. Spurs grow out from the edge of the bone, and synovial fluid increases. Altogether, the joint feels stiff and sore.

From the [National Institute of Arthritis and Musculoskeletal and Skin Diseases](#)

Related Web Sites

DISCLAIMER

- [Australian Broadcasting Corporation: Dr. Karl "Knuckle Cracking"](#)
Dr. Karl answers the question "What happens when I crack my knuckles and is it bad for you?". There is an option to listen to the discussion using Real Audio. References are included at the end of the page.
- [John Hopkins Department of Orthopedic Surgery: Patient Guide to Joint Cracking and Popping](#) - Joint Cracking and Popping. Doctors from John Hopkins answer the question "

Is cracking and popping joints normal?"

- [University of Washington Orthopedic and Sports Medicine: About Joints](#) - This Website provides a great introduction about joints. Included in the discussion is information about motion and function, inflammation, stability, lubrication, and popping / cracking joints. Illustrations accompany the text.
- [University of Arkansas for Medical Sciences: Gross Anatomy Table of Joints](#) - This site provides an advanced discussion about the function of normal joints, arthritis and other joint ailments. Illustrations accompany the text.

Further Reading

WWW.LOC.GOV

- Ballard, Carol. *How do we move?* Austin, Tex., Raintree Steek-Vaughn, c.1998. 32p. (Juvenile).
- Gunn, Christine. *Bones and joints: a guide for students.* Edinburgh; New York, Church Livingstone, 1992. 186 p.
- Kingston, Bernard. *Understanding joints: a practical guide to their structure and function.* Cheltenham, Stanley Thomes, 2000. 240 p.
- Ward, Brian. *Bones and joints.* New York, F. Watts, c.1991. 32 p. (Juvenile).



For more print resources...

Search on "osteoarthritis," "synovial," or "bones and joints" in the [Library of Congress Online Catalog](#).



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