**Investment in research saves lives and money**

**facts about:**

**Arthritis**

The term ‘arthritis’ refers to over 100 different types of joint pain or diseases.

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**Today:**

- Arthritis is the most common cause of disability in the U.S., and has been for the past 20 years.¹
- 22.7% of adult Americans, 52.5 million individuals, report having arthritis.²
- By 2030, an estimated 67 million Americans will have arthritis.³
- Nearly half of all Americans over the age of 65 suffer from arthritis.⁴
- In the U.S., 300,000 children, or 1 in 250, have juvenile arthritis (JA).⁵
- Arthritis is responsible for nearly 1 million hospitalizations per year.⁶
- Over 40% of adults with clinically diagnosed arthritis report being physically limited by their condition.⁷

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**HOW RESEARCH SAVES LIVES:**

- Individuals with rheumatoid arthritis (RA) have twice the risk of mortality as the general public. The addition of a new biologics treatment to standard care more than doubled the remission rate for individuals with RA within 5 years, reversing the disfigurement seen in the joints of people with advanced RA. Recent studies have found that new treatments are now able to reduce and reverse the symptoms of RA so much so that it no longer increases their risk for mortality.⁸ ⁹ ¹⁰
- Research has offered important clues to the optimal knee replacement procedures for patients with arthritis. Findings indicate individuals who receive a partial knee replacement are half as likely to have a blood clot, heart attack or deep infection, three times less likely to have a stroke and four times less likely to die within a month of surgery, compared to individuals who received a more invasive knee surgery to treat arthritis.¹¹

**HOW RESEARCH SAVES MONEY:**

- Doctors are utilizing ultrasound technology to improve quality of care and reduce medical costs. Ultrasound is used to see inside the joint in real time, allowing for precise treatment administration and close observation. Ultrasound imaging is roughly one tenth the cost of alternative imaging techniques like CAT scans and MRIs.¹²
- Due to superior medical devices, knee and hip replacements have been shown to greatly reduce health care costs for individuals with osteoarthritis. Compared to individuals who received symptom management interventions, patients who underwent knee and hip replacements had 45.3% and 35.5% lower osteoarthritis-related health care costs, respectively.¹³

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**The Cost:**

- Arthritis is estimated to cost the U.S. $128 billion per year in direct and indirect costs.¹⁴
- In 2013, the U.S. spent $6.4 billion on rheumatoid arthritis (RA) treatment. That cost is expected to rise to over $9 billion by 2020.¹⁵
- Employees with arthritis are more likely to miss days of work than employees with any other medical condition. Two types of arthritis, osteoarthritis and RA, are responsible for 172 million missed days of work per year.¹⁶

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**perspective:**

NAME: Alison Moschitta

AGE: 12

CONDITION: Juvenile Arthritis

Alison Moschitta first showed symptoms of juvenile arthritis (JA) when she was just 3 years old. She would complain about her legs hurting, and she was unable to do normal tasks such as tying her shoes or closing buttons. Over the next two years, Alison’s family took her to see many doctors about her pain, but the prescribed medications failed to have any effect. After being told by numerous physicians that she had chronic pain without receiving an underlying diagnosis, Alison’s family decided to take her to Vanderbilt University in Nashville, TN, where she was finally diagnosed with JA.

Since her diagnosis, Alison has been getting Infliximab injections, giving her the ability to be more active, but she still experiences daily limitations due to her condition. Alison’s father, Keith, explains the challenges his daughter faces in combating this condition: “Alison has been in many clinical research studies…She’s had steroid injections and taken many different drugs, but they haven’t worked.” Symptom management has provided the most relief for Alison, but the constant treatments put a major burden on her family. "It was hard to travel to Nashville [from Atoka, TN, a 3-hour drive] for Alison’s treatments, because it meant that one parent had to stay home from work and lose income," says Keith.

Her condition has been tough for both Alison and her family, but there are some positives that have come from the struggle. “We are now involved with the Juvenile Arthritis Foundation as volunteers,” says Keith, who, with the help of the community, has raised over $5,000 for the organization. Through their advocacy efforts, the Moschitta family has learned a lot about the impact of JA, which affects over 300,000 children in the U.S. “We’d love for Representatives and Senators to join the Congressional Arthritis Caucus,” says Keith, “We would also love for NIH and CDC to get more money for researching arthritis, because through research you’ll save more in the long run.”

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¹ PHARMA <WWW.PHARMA.ORG>  
² LICHTENSTEIN, KARINA. MEDICIME.NET.COM, 2012.  
⁴ UNIVERSITY OF OXFORD <WWW.OX.AC.UK>  
⁵ UNIVERSITY OF ROCHESTER MEDICAL CENTER <WWW.URMC.ROCHESTER.EDU>  
Hope for the Future:

- In 2014, there were 92 different treatment candidates in the drug development pipeline to treat arthritis, including 55 for RA, 15 for musculoskeletal pain and 10 for osteoarthritis.

- Researchers at the Brigham and Women’s Hospital in Boston have identified the mechanisms that cause the travel of white blood cells from the blood stream to the surrounding tissue causing swelling. Subsequent research is now looking at the possibility of halting this migration of cells, preventing the painful tissue damage seen in RA and other forms of inflammatory arthritis.

- Very little is known about the juvenile forms of arthritis. National Institutes of Health researchers are exploring mutations that lead to macrophage activation syndrome (MAS) a deadly complication associated with juvenile arthritis. By identifying the genetic causes, scientists can seek to inhibit these harmful genes, eliminating the problem at its source.

The Bottom Line:

While we have made significant progress against different forms of arthritis, millions of patients combat debilitating symptoms and cures remain elusive. This leaves millions of Americans suffering, with the affected population only expected to grow. Investments in research is desperately needed to eliminate this painful and debilitating disease.

Number of Adults (in thousands) and Percentage of Population with Arthritis, 2013

Source: Centers for Disease Control and Prevention