

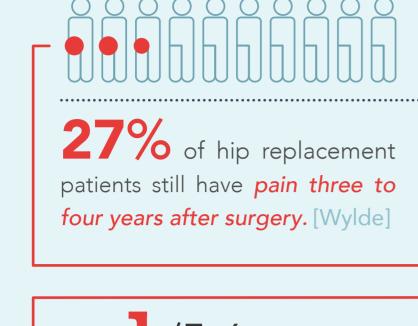
1. UNRELIEVED CHRONIC PAIN Click to View References for all Sections >>

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>54% have pain five years

after knee replacement, showing

an increase in patients with pain



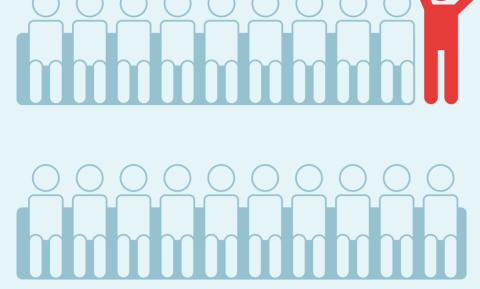
Only 1/5-6knee replacement patients will report > 15% change in improvement.

5/10 is the average *pain level* following knee replacement - not much different than prior to surgery.

from year to year. 87% of those develop knee pain only after surgery. [Metsna] 5/10

47% of knee replacement patients begin taking pain medications during the year following their surgery. [Fuzier]

Major depression is more common for patients with pain following joint replacement. [Wylde] 2. ACTIVITY LEVELS LOWER THAN EXPECTED [JONES, KAHN, HARDING]

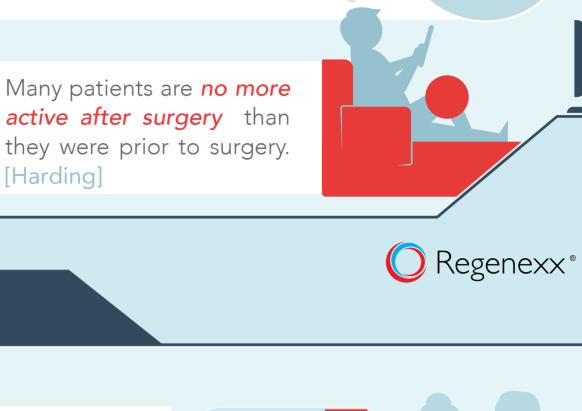


[Harding]

Only **5%** or less (1 /20 people)

achieve anything approaching

normal activity. [Kahn]



KNEE REPLACEMENT [Lalmohamed]

31 times more likely to

experience a heart attack

in the two weeks following

3. HEART ATTACK AND STROKE

26 times more likely to

experience a heart attack

in the two weeks following

HIP REPLACEMENT

[Lalmohamed]

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PATIENTS AGE

60+

Blood thinners are normally used to reduce the risk of blood clots with knee-replacement, but when they're used, patients experience a

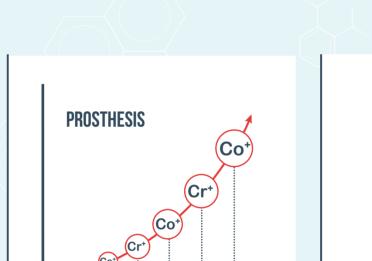
4. **BLOOD CLOTS** AND HEMORRHAGES

5. METAL IONS IN THE BLOOD

higher risk of excessive bleeding. [Lalmohamed]

Amputating a joint causes severe trauma to blood vessels,

likely increasing risk of blood clots. [Watanabe]



6. ALLERGIES TO PROSTHETIC JOINT

in the blood.

[Friesenbichler]

Wear particles in knee & hip replacements, particularly metal-on-metal The larger the prosthesis, devices, can lead to the more metal ions found toxicity from the heavy

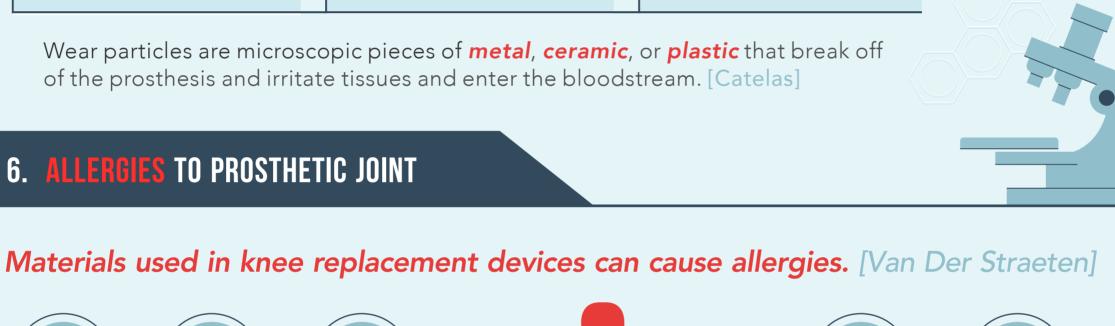


One-third of minimally invasive hip replacement

pseudotumors, caused

by black soot-like metal

patients develop



in a joint prosthesis.

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Before

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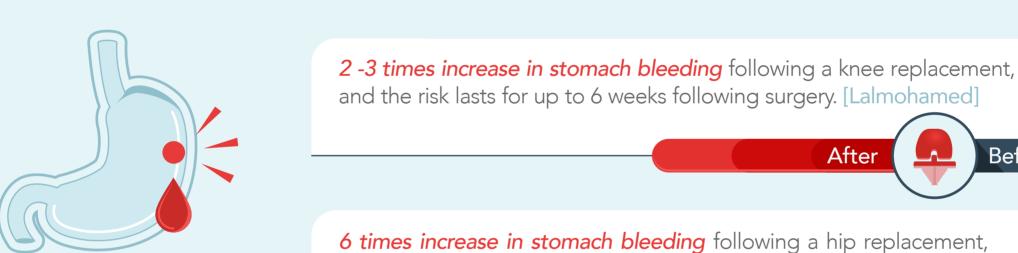
likely have sensitivities to the metals

After

PLASTIC / CERAMIC / METAL

{{{} Allergies of any kind, including pollen or cat People with sensitivities to metals, dander, are tied to having more pain and such as those in certain jewelries, will

metals. [Catelas]



inflammation after a knee replacement as the

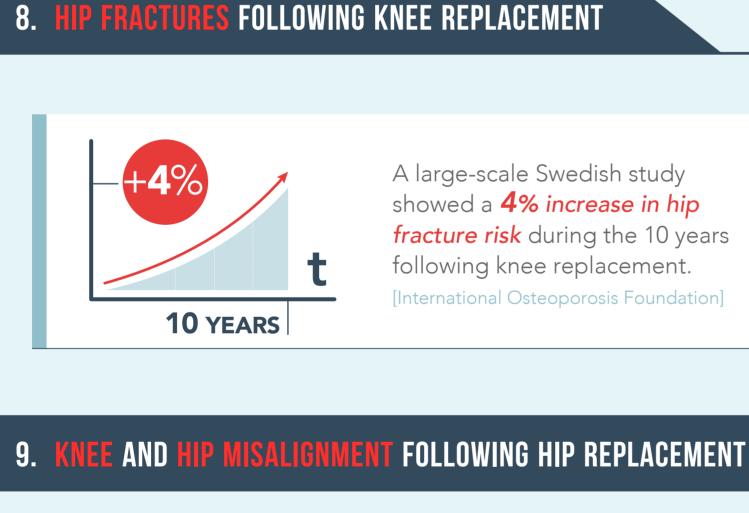
hyperactive immune system perceives the

device as foreign. [Hinarejos]

7. **BLEEDING STOMACH ULCERS**

Before] After

and the risk lasts for up to 12 weeks following surgery. [Lalmohamed]



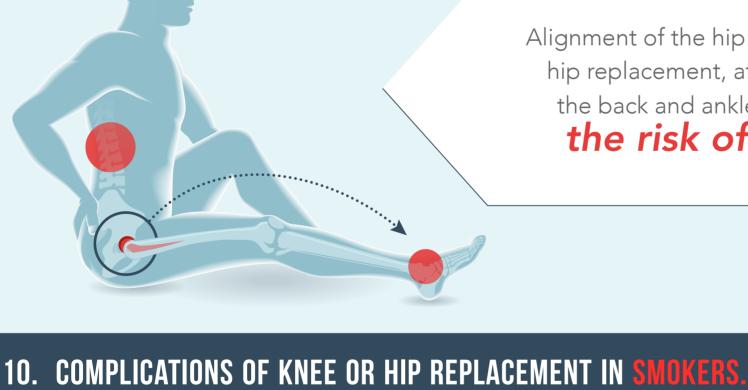
A large-scale Swedish study showed a 4% increase in hip

Alignment of the hip and knee alters following

fracture risk during the 10 years

[International Osteoporosis Foundation]

following knee replacement.



+161% Chance of STROKE

SMOKERS HAVE A:

Chance of

[Singh]



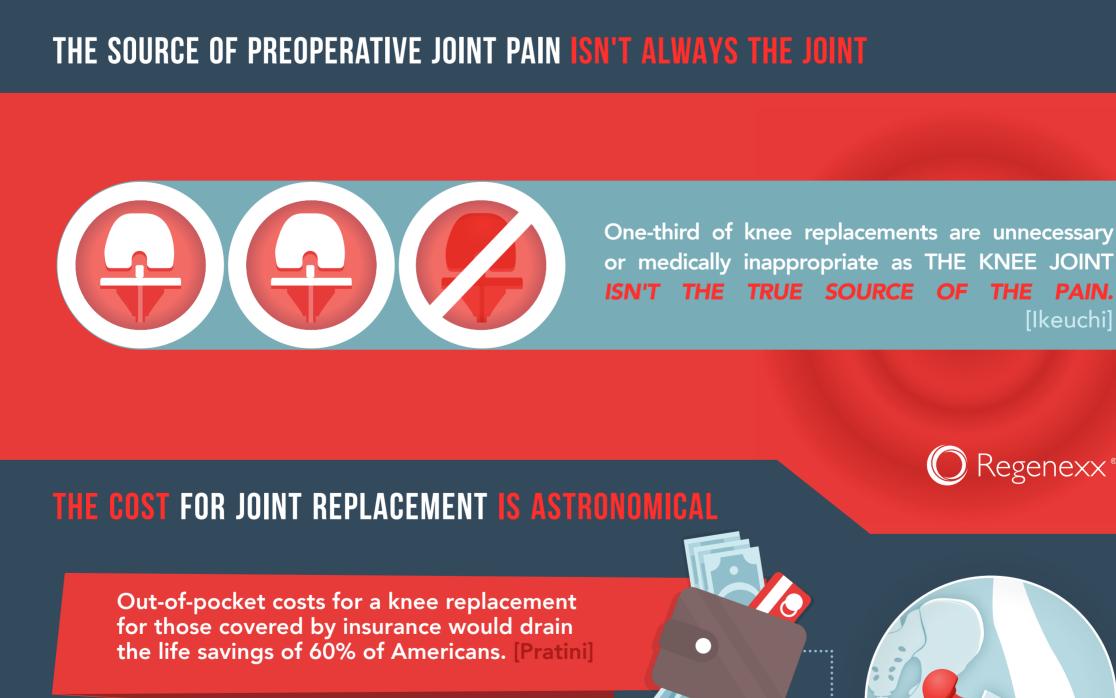
+63%

[Singh]

Chance of DEATH

at one year post-op.

Chance of



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COST for a **HIP**

[CostHelper]

REPLACEMENT in

the US was nearly:

\$40,000

[Ikeuchi]



[CostHelper]

IN 2015, THE AVERAGE COST for a total KNEE

such as anesthesia, pathology, etc.) was over:

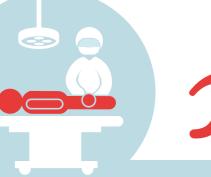
\$55,000

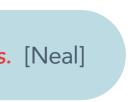
REPLACEMENT (plus additional services

of patients who have a single joint replacement will have another joint replacement within 2 years.

Overweight or obese patients have poorer outcomes and more complications. [Mackie, Gandhi]

5 years





In younger, more active patients, 15% of knee-replacements need revisions after just five years. [Neal]

700,000 + **KNEE** replacements 300,000 +HIP replacements knee-replacement surgeries have no clear medical indication. [Riddle]

and these numbers continue to climb. [CDC]