The Consequences of Habitual Knuckle Cracking

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KEY POINTS FROM THIS ARTICLE:

1) “Habitual knuckle cracking in children has been considered a cause of arthritis.”

2) Manipulating the metacarpal-phalangeal (MCP) joints to produce an audible popping or cracking sound is a “commonly observed childhood habit not infrequently persisting into adult life.”

3) Knuckle cracking (KC) appears to cause some comfort or satisfaction to the person doing it; however, it has been claimed, “arthritis would be an inevitable outcome.” [A claim this study shows to be false] “As a consequence, many children with this habit are chided to stop cracking their knuckles lest arthritis or enlarged knuckles or both develop.”

4) Twenty-eight (average age 78.5 years) patients were examined clinically and by x-ray. Also, the incidence of KC in this geriatric population was compared with a group of 11-year-olds.

5) “Only one patient with a history of KC showed MCP degenerative joint disease [DJD] compared with 14 knuckle crackers who showed no changes.”

6) “MCP osteophytes were observed in five patients who had no history of KC.”

Elderly people (average 78.5 years) and knuckle cracking / osteoarthritis

<table>
<thead>
<tr>
<th></th>
<th>Yes Habitual Knuckle Cracking N= 15</th>
<th>No Habitual Knuckle Cracking N= 13</th>
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</thead>
<tbody>
<tr>
<td><strong>Yes Knuckle Osteoarthritis</strong></td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td><strong>No Knuckle Osteoarthritis</strong></td>
<td>14</td>
<td>8</td>
</tr>
<tr>
<td><strong>Percentage with Osteoarthritis</strong></td>
<td>6.7%</td>
<td>38.5%</td>
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7) The prevalence of KC in the geriatric population is about the same as the prevalence in a youthful population.

8) Every patient with MCP DJD, whether or not they were knuckle crackers, also had radiographic evidence of distal hand DJD, suggesting that “MCP DJD is a function of whatever the predisposing factors are to osteoarthritis” and that “MCP DJD is not a consequence of knuckle cracking.”

9) This survey of a “geriatric patient population with a history of knuckle cracking failed to show a correlation between knuckle cracking and degenerative changes of the metacarpal phalangeal joints.”

10) “The data fail to support evidence that knuckle cracking leads to degenerative changes in the metacarpal phalangeal joints in old age.”

11) “The chief morbid consequence of knuckle cracking would appear to be its annoying effect on the observer.”

COMMENTS:

This study concludes that habitual knuckle cracking does not increase the incidence of cracked knuckle osteoarthritis. I agree with this conclusion.

However, in reviewing the data, I believe their findings could have been stated differently:

1/15 knuckle crackers had knuckle DJD, = 6.7%
5/13 who did **NOT** crack their knuckles had knuckle DJD, = 38.5%

It appears to me that habitual knuckle cracking significantly reduces the incidence of knuckle DJD. [by 82%] [(38.5 – 6.7)/38.5 = 82]