Mathematics of Pain Relief

Drug overdose – mostly from painkillers – now kill more people than car crashes.

Over the counter or prescription: What’s most effective?

The most effective pain relief combination: 200mg of ibuprofen + 500mg of acetaminophen

One study compared the effectiveness of over-the-counter and prescription pain meds.

You need to add:

1000 mg acetaminophen + 10 mg oxycodone to make oxycodone AS EFFECTIVE AS

200 mg ibuprofen provides as much pain relief as a 10 mg morphine shot

Getting better pain relief

We can tell how effective medication is based on how many people taking it feel better. This metric is called Number Needed to Treat (NNT).

A low NNT means the medicine is more effective.

<table>
<thead>
<tr>
<th></th>
<th>Ibuprofen + acetaminophen</th>
<th>Oxycodeone</th>
</tr>
</thead>
<tbody>
<tr>
<td>NNT score of 1.5</td>
<td>NNT score of 4.6</td>
<td></td>
</tr>
<tr>
<td>Got Relief</td>
<td>Got Relief</td>
<td></td>
</tr>
<tr>
<td>Did Not Get Pain Relief</td>
<td>Did Not Get Pain Relief</td>
<td></td>
</tr>
</tbody>
</table>

When people get half their pain reduced, they start feeling better and can do more.

WHAT CAN YOU DO?

Explore alternatives to opioid painkillers

Use the smallest amount of opioid painkillers for the fewest number of days

Download the white paper: nsc.org/painmedevidence