

Michel Tagliati <sup>1</sup>, Emma Rachel Rengasamy <sup>2</sup>, Nile Saunders <sup>3</sup>, Joseph Pergolizzi Jr <sup>4</sup>, Laura Catalina Cortes <sup>5</sup>, Peter Magnusson <sup>6, 7</sup>

<sup>1</sup>. Clinical Sciences, Proactive Health Inc, Stockholm, SWE <sup>2</sup>. Public Health, University of Cambridge, Cambridge, GBR <sup>3</sup>. Health Sciences, Swansea University Medical School, Swansea, GBR <sup>4</sup>. Cheif Operating Officier, Nema Research, Inc, Naples, USA <sup>5</sup>. Research, NEMA Research Group, Naples, FL, USA <sup>6</sup>. Cardiology, Center of Research and Development Region Gävleborg /Uppsala University, Gävle, SWE <sup>7</sup>. Medicine, Cardiology Research Unit, Karolinska Institutet, Stockholm, SWE

**Corresponding author:** Laura Catalina Cortes, michel.tagliati@proaktivhalsa.se

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## Abstract

### Objective

Obesity has emerged as a significant public health country in many nations and is associated with elevated risk for comorbidities. Overweight and obese individuals are more likely to experience chronic pain, and in the United States, 27% of prescription chronic opioid use occurs in adults with an above-normal body mass index (BMI) defined as 25-49.9. At the same time, opioid-associated overdose mortality is increasing and the number of opioid prescriptions in a community can be correlated to short-term mortality without adjustment for sociodemographic background, health status, or utilization. The connection among chronic pain and opioid mortality may be more complex than originally speculated and it may be important to consider the role obesity could play.

### Methods

This is a narrative review. The significant association between obesity and prescription opioid use increased with the BMI score and are strongly correlated to osteoarthritis, low back pain, and other joint disorders. Obesity may be a risk factor for these joint-loading conditions, in particular due to changes in biomechanics, adipose tissue inflammation, and metabolic or hormonal dysregulation.

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### Results

The parallel increases in chronic pain diagnoses and opioid prescribing and related mortality may have obesity as its source. Socioeconomic factors may play a role, in that obesity in the United States is more prevalent in poor communities, however the issue is complex in that rich nations have more obesity than poor nations.

### Conclusions

In the United States, poor communities have higher rates of sedentariness than wealthier communities, which may be associated with greater rates of obesity. Poor communities may be sedentary because of higher crime rates, less access to gyms or recreation centers, and lack of health insurance. Faced with chronic pain, such impoverished individuals might seek cheap street opioids.