

# GOUT AND ACTIVITIES OF DAILY LIVING

October 2024

Gout is a form of arthritis that occurs when too much uric acid builds up in the joints. Symptoms most commonly present in the large toe, but can be present in other joints, and include a sudden onset of severe pain, redness, and swelling. Gout attacks often happen at night, as the body's temperature lowers, allowing uric acid to more quickly crystallize in the joints to cause the onset of an attack. With proper treatment, gout and its painful attacks can be successfully managed<sup>1</sup>.

TREND is a community-powered digital analytics company that turns the conversations of rare and chronic disease communities into actionable insights that spark broader understanding and therapeutic progress. The aim of this research is to gain a deeper understanding on the impact of gout on activities of daily living with a focus on professional activities. We have been partnering with the Gout Support Group of America (GSGA) for this important work.

## FACEBOOK

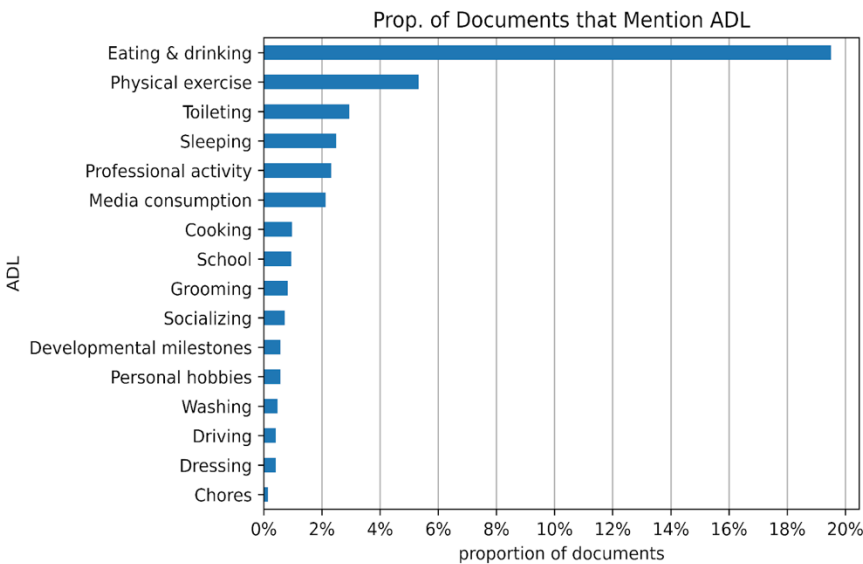
**Group:** Gout Support Group of America  
**Posts & Comments Analyzed:** 114,016  
**Time Range:** 2021-2024

## DATA SOURCES

## REDDIT

**Group:** r/gout  
**Posts & Comments Analyzed:** 217,967  
**Time Range:** 2011-2024

Figure 1. Proportion of Documents Mentioning ADL



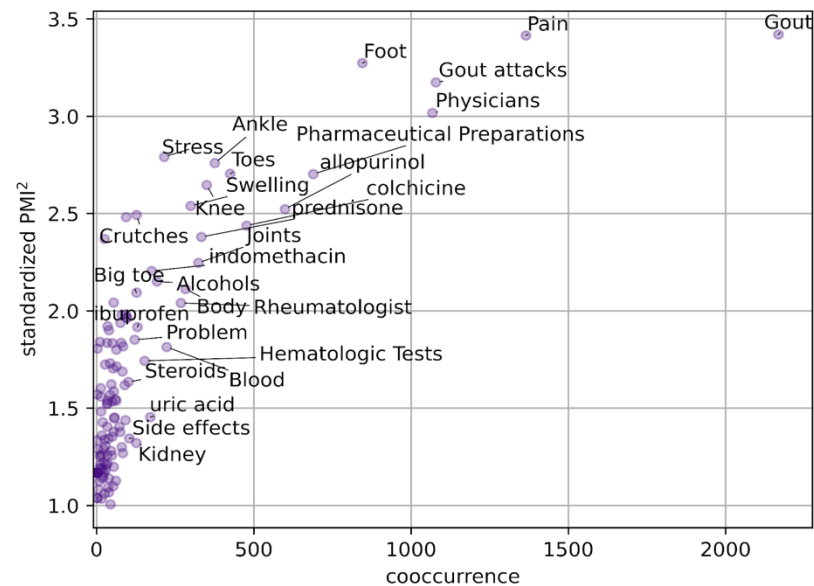
The bar chart in Figure 1 displays the percentage of documents that mention different Activities of Daily Living (ADL), with bars representing the proportion of documents mentioning each category, ranging from ~0% to ~20%. We found:

- Eating & drinking is the most frequently mentioned ADL, appearing in over 20% of documents.
- Physical exercise, toileting, and sleeping are the next most common ADLs.
- Professional activity is mentioned in 2.3% of the analyzed documents, making it the fifth (5<sup>th</sup>) most frequently mentioned ADL category.
- Basic self-care activities like grooming, washing, and dressing are mentioned less frequently, each appearing in less than 2% of documents.

The scatter plot in Figure 2 displays the relationship between co-occurrence frequency and standardized PMI<sup>2</sup> (Pointwise Mutual Information) for various concepts related to professional activities. Each point represents a concept, with its position indicating its co-occurrence frequency (x-axis) and standardized PMI<sup>2</sup> value (y-axis). We found:

- "Gout," "Gout attack," "Pain," and "Foot" have the highest standardized PMI<sup>2</sup> values and high co-occurrences, suggesting strong association with Professional activities.
- Treatment-related terms and medications like "allopurinol," "colchicine," and "prednisone" appear in the mid-range, reflecting their importance in managing gout in professional settings.
- Body parts like "Ankle," "Toes," "Knee," and "Joints" are prominently featured, highlighting the physical impact of gout on work activities.

Figure 2: Standardized PMI<sup>2</sup> vs. Co-occurrence of Professional Activity and Other Concepts



<sup>1</sup>Gout Support Group of America website: <https://goutsupportgroup.org/about/>

