

# General population tooth sensitivity prevalence and attitudes towards sensitivity toothpaste

## NovaMin Research Report

Research Organization:  
Greenfield Market Research  
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**Abstract:** A large scale survey was conducted among a representative sample of the US population to look at prevalence of tooth sensitivity, as reported by participants, along with history of sensitivity toothpaste usage and attitudes. The study results included breakouts for gender, age, income and other demographic characteristics.

The survey was completed by a gender and regional balanced group of 1056 volunteers. Each respondent disclosed their personal experience with tooth sensitivity, any usage history of sensitivity toothpastes, and agreement with certain characterizations of their experience when trying sensitivity toothpastes

Only 18% of respondents reported having never had sensitivity (thus 82% had at least some experience with sensitivity), and roughly half reported that they had it at least occasionally. Almost half of respondents had tried sensitivity toothpastes, but only about one-third of those found their experience to be positive in most respects.

As occasional or frequent prevalence is high and satisfaction with current sensitivity toothpastes is low, it would appear from these results that the dental professional may find a large portion of their patient base interested, to some extent, in new tooth sensitivity products.

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**Background:** Estimates of the number of US adults experiencing tooth sensitivity vary widely in the published literature, from 20-45%. Most such reports are based on time-specific clinically measured sensitivity. Many adults report that sensitivity is intermittent, and as such clinical prevalence may under estimate the total number of individuals who may be potential consumers of sensitivity toothpaste on some regular basis. In addition, the cumulative market shares of sensitivity toothpastes are generally reported to be in the range of 8-10%, which is well below the reported incidence rate of the condition. There are several possible reasons for this, including wide spread dissatisfaction with the products themselves, insufficient seriousness to warrant purchase of products; or over-reporting of the prevalence of the condition.

This study was designed to better understand the self-reported prevalence of tooth sensitivity; the consumer's experience with sensitivity toothpastes; and reasons for non-purchase among those with the condition.

**Method:** This was an "omnibus" online research survey which contained approximately 100 questions on various consumer behavior topics. The panel of survey recipients volunteer to participate in market research and are recruited through a variety of methods. The panel and survey are managed by Greenfield Market Research, a respected market research and polling organization. Participants are recruited

to be nationally representative, although computer access is required for survey participation, which may skew results slightly. Participants are compensated for each returned survey.

This project placed 3 unique questions regarding tooth sensitivity, results of which are cross tabulated with 13 standard demographic questions. 1056 surveys were returned, with 527 males and 529 females responding. Respondents generally matched national demographics for geographic dispersion, income, age and education. All ethnic minorities were somewhat under-represented (13%) while Caucasians were somewhat over-represented (87%).

The following project-specific questions were asked:

1. "How often do you experience tooth sensitivity to things like hot and cold liquids?": "Frequently and Severely"; "Frequently, but not severely"; "Occasionally"; "Infrequently"; and "Never" were the multiple choice response options.
2. "How often, if ever, have you purchased special toothpaste to relieve your sensitivity?" "Purchase regularly"; "Purchase occasionally"; "Tried, but haven't purchased recently"; "Never purchased" were the multiple choice response options.
3. (Those responding "never purchased" on question two were excluded) "When you purchased special toothpaste for your sensitivity, which of the following describes

your experience?" Choose all that apply." Multiple choice options were: "Positive in most respects"; "Was effective for sensitivity, but I disliked other characteristics (flavor, etc.)"; "Somewhat effective, but not worth regular use"; "Too expensive"; and "did not help my sensitivity much".

Statistical analysis was conducted between results at the 10% risk level for gender breaks (M,F); Age Breaks (<25,25-34;35-44;45-54;55+); household income breaks (<\$25k; \$25-50k; \$50-75k; \$75-100k; \$100k+); region; marital status; children in household and employment status.

## Results:

**Sensitivity experience:** Over 80% of respondents had some experience with tooth sensitivity, with only 18% reporting that they "never" had sensitivity. Twenty-two percent (22%) of respondents reported frequent bouts of sensitivity, and 59% reported that they experienced it "occasionally" or "infrequently". Six percent (6%) of respondents experienced sensitivity "frequently and severely".

As seen in Table 1, males were somewhat less likely to have experienced sensitivity as compared to females, with 52% of males reporting that they "infrequently" or "never" experienced sensitivity. The comparable number for women was 42%, which was statistically significant.

Table 1: Responses to Question 1, Sensitivity experience

	All Resp.	Male	Female	Age 55+
Frequently and severe	6%	6%	6%	2% <sup>1</sup>
Frequently, not severe	16%	14% <sup>2</sup>	18%	7% <sup>1</sup>
Occasionally	30%	27% <sup>2</sup>	33%	27%
Infrequently	29%	32% <sup>2</sup>	26%	40% <sup>1</sup>
Never	18%	20% <sup>2</sup>	16%	24% <sup>1</sup>

1. Significantly different from "All Respondents" at 10% risk level. 2. Males statistically different from females at 10% risk level.

Seniors (55+) were less likely to experience sensitivity than other age groups, with 64% reporting that they "infrequently" or "never" experienced sensitivity. This compared to values in the 43-45% range for other groups, also statistically significant. There were also correspondingly lower numbers of 55+ respondents who indicated "frequent" sensitivity – only 9%, compared to a range of 23-28% among other age groups. The <25 age group actually had the highest rate of frequent sensitivity (28%), although it was not statistically different from other ages (except 55+ group).

**Sensitivity Toothpaste purchasing:** Although the number of respondents who had tried sensitivity toothpaste was high, at 46%, only 8% purchased on a regular basis.

Table 2: Frequency of Sensitivity Toothpaste purchase, all respondents

Purchase regularly	8%
Purchase occasionally	14%
Tried, but haven't purchased recently	24%
Never purchased	54%

Men were less likely to have ever tried sensitivity toothpaste than women (43% vs. 49%), although there was no difference between men and women in regards to those that purchased "regularly" or "occasionally". Respondents in the 45-55 age group were substantially more likely to have tried sensitivity toothpaste than other age groups (57%). Not surprisingly, respondents in the <25 age group were least likely to have ever tried a sensitivity toothpaste, (only 33%). Other age groups had no statistical differences in trying (ranging from 41-46%). Married respondents were somewhat more likely to be "regular" or "occasional" purchasers as compared to unmarried respondents (24% vs. 17%).

Curiously, respondents living in the western US were substantially less likely and those in the central US substantially more likely to purchase sensitivity toothpaste regularly (4% and 12% respectively).

**Sensitivity Toothpaste Experience and Satisfaction** (note: percentages are among those who had ever tried sensitivity toothpaste, with more than one response allowed):

Only 34% of sensitivity toothpaste purchasers agreed with the statement that their experience was "positive in most respects, leaving 66% who were apparently less-than-satisfied with current products. There were no differences between demographic breakouts on this measure.

Table 3: Sensitivity toothpaste triers agreeing with statement

Positive in most respects	34%
Effective, but disliked other characteristics	22%
Somewhat effective, but not worth using regularly	35%
Did not help my tooth sensitivity	15%
Too expensive	20%

Twenty-two percent (22%) agreed with the statement that it was "effective, but they disliked other characteristics (such as flavor, etc.)". Younger and wealthier respondents were somewhat more likely to agree with this statement.

The leading response was that the product was "somewhat effective, but not worth regular use", at 35% of respondents. The youngest and oldest ends of the age ranges were more likely to agree with statement than were people in 35-54 age ranges.

An additional 15% responded "did not help my tooth sensitivity much". Respondents in the 45-54 age range were most likely to agree with this statement (20%) as were those in the western US (20%).

Finally, 20% agreed with the statement that sensitivity toothpaste was “too expensive”. Interestingly, there were no statistical differences among income levels on this item.

**Discussion:**

The results of this research indicates that a larger number of consumers than might have been expected have experienced tooth sensitivity, with 82% of the population having experienced it at least “infrequently”. Over half the respondents have experienced sensitivity occasionally or frequently, and almost half have tried sensitivity toothpaste at some point. This indicates that roughly one of every two patients encountered by the dental professional is likely to have some level of interest in treatments for sensitivity, even if they are not experiencing it at the time of appointment.

Furthermore, satisfaction with traditional sensitivity toothpastes appears to be low, as only about one-third reported their experience as “positive in most respects”, and only 8% purchase it regularly (despite almost half having tried it).

Thus, sharing information on new sensitivity therapies with patients provides a service to a much larger share of patients than the 20-25% that might be expected from clinical prevalence studies, and those patients may not be satisfied with current options and therefore likely to be open to new therapies.

Finally, female patients and patients under the age of 55 are more likely to experience sensitivity and dental professionals should be particularly alert for symptoms in those populations.