

# **Googletrends Analysis of Interest in Surgical and Non-Surgical Rhinoplasty in Relation to the COVID 19 Pandemic**

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## **BACKGROUND**

Non-surgical rhinoplasty is a growing area in plastic surgery. We hypothesize that changes imposed by the COVID19 pandemic, including surgical restrictions, patient safety concerns, and increased use of video communication, may have inspired increased interest in non-surgical means of improving the appearance of the nose. We used GoogleTrends analysis to assess whether this is reflected in google searches before and during the pandemic.

## **METHODS**

We employed Google Trends “Explore Topics” feature to search the terms “Liquid Rhinoplasty”; “Non-surgical rhinoplasty”; and “rhinoplasty” within the United States. We calculated the monthly mean of the relative search value (RSV) for these terms from March 2017 - December 2020. The 12 month period prior to March 2020 was compared to the period following March 2020. Data were entered into a Numbers spreadsheet and values were compared using a two-tailed equal variance t test.

## **RESULTS**

Interest in both surgical and non-surgical means of improving the appearance of the nose increased over the period evaluated (3/2017 - 12/2020). Interest in surgical rhinoplasty decreased in the three months following March 2020 compared to the average annual interest in the 12 months prior. In March, April, and May of 2020 there was 18.2%, 12.4%, and 11.1% decrease in rhinoplasty RSV compared to the mean value of the year prior. However, beginning in June 2020, interest in rhinoplasty increased above the mean RSV for the twelve months prior to March 2020. Interest in "liquid rhinoplasty" decreased in March and April 2020 by 40.1% and 82.2% compared to the average annual interest in the 12 months prior to March 2019; this trend then reversed. Finally, interest in “non-surgical rhinoplasty” was found to be higher after March 2020 than the mean RSV for the year prior. A two-tailed T test performed demonstrated a significant difference in the RSV for the three months following March 2020 compared to the 12 months prior to March 2020 for Rhinoplasty ( $p=0.022$ ) and Non-surgical Rhinoplasty ( $p=0.039$ ) but not for Liquid Rhinoplasty ( $p=0.357$ ). In the period from June 2020 - December 2020, there was a significant difference in the RSV for all three terms compared to the year prior to March 2020 (Rhinoplasty  $p<0.001$ ; Liquid Rhinoplasty  $p=0.006$ ; Non-surgical Rhinoplasty  $p=0.001$ )

## **CONCLUSION**

Google Trends analysis enables rapid evaluation of interest in topics relevant to plastic surgeons. Interest in both surgical and non-surgical means of improving the appearance of the nose has increased in the last three years. In the three months following March 2020, interest in the terms rhinoplasty and non-surgical rhinoplasty significantly decreased compared to the 12 month period prior to March 2020. This trend was not seen with the term liquid rhinoplasty. In the months following May 2020, interest in all three terms significantly exceeded mean interest in these terms in the 12 months prior to March 2020. This may reflect an overall increase in interest to improve the appearance of the nose.