

## **Millennials Are Interested in Botulinum Toxin Injections for Prevention of Facial Rhytids: A Survey of Laypeople**

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### **BACKGROUND:**

Botulinum toxin has been utilized for the treatment of facial rhytids since 2002. First developed for the treatment of strabismus, botulinum toxin injection indications have expanded greatly. Typically utilized in older generations for the treatment of glabellar, brow, periorbital, and forehead dynamic rhytids, younger generations may be pursuing botulinum toxin injections for the prevention rather than treatment of these same rhytids at a younger age. This study evaluates whether patients interested in botulinum toxin injections are seeking treatment at an earlier age. We hypothesize that there is an increased interest in Botox injections among younger patients and that younger patients are interested in the potential preventative effects of repeat injections. Furthermore, we investigate the type of providers that this patient population is receiving Botox injections from.

### **METHODS:**

A 26-question survey was designed on Qualtrics and distributed to laypeople through Amazon Mechanical Turk system. Data was extracted from the Qualtrics website and processed with Microsoft Excel.

### **RESULTS:**

There were 516 completed surveys and two incomplete surveys. 35% of respondents were male and 65% of respondents were female. 92% of respondents were familiar with botulinum toxin injections with 21% having received botulinum toxin injections and 18% have received injections for cosmetic indications. Of those who have received botulinum toxin injections, 45% utilized injections for the treatment of wrinkles, 37% for the prevention of wrinkles and 18% for the management of a non-cosmetic indication.

When all respondents were asked the purpose of botulinum toxin injections, 11% thought they were for the prevention of wrinkles, 25% believed they were for the treatment of wrinkles, while 63% believe they are for both the prevention and treatment of wrinkles (Figure 2).

## CONCLUSION:

Younger patients are pursuing botulinum toxin injections at an earlier initial age than their older counterparts. Significantly more people believe that these injections are intended for the prevention and treatment of facial rhytids rather than treatment alone. Dermatology is capturing the younger patients interested in botulinum toxin. Plastic surgeons must be aware of the shifting landscape in order to adequately access this increasing patient population

**Table 1**

<b>Age of Respondent (years)</b>	<b>% receiving injection at dermatology office</b>	<b>% receiving injection at board certified plastic surgeon office</b>
19-25	53.33%	0.00%
26-30	35.00%	25.00%
31-35	28.57%	14.29%
36-40	33.33%	22.22%
41-45	37.50%	0.00%
46-50	33.33%	0.00%
51-55	33.33%	33.33%
56-60	28.57%	57.14%
61 or older	33.33%	33.33%

Figure 1

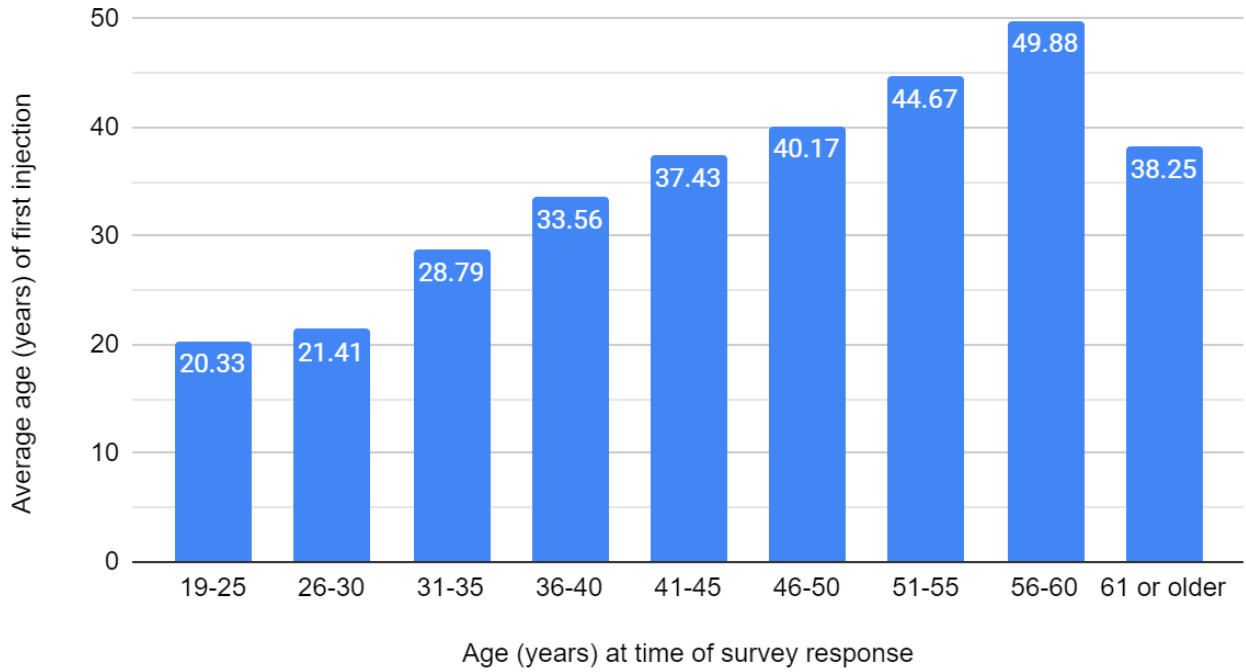


Figure 2: Purpose of Botulinum Toxin Injections

