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## Effect of Age on Satisfaction with Facial Appearance in Women Based on the FACE-Q Questionnaire in a Dutch Normative Population

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**e Effect of Age on Satisfaction with Facial Appearance in Women Based on the FACE-Q Questionnaire in a Dutch Normative Population**

Nowadays, the most frequently used and validated patient-reported outcome measurement for aesthetic facial procedures is the FACE-Q questionnaire.<sup>1–3</sup> To date, no publications are available assessing the influence of age on satisfaction based on the FACE-Q questionnaire in a normative population. Therefore, this study assessed

whether facial appearance measured by different modules of the FACE-Q questionnaire was age related in women who never received an aesthetic facial procedure.

A prospective cross-sectional study was performed by the University Medical Center Groningen, Groningen, The Netherlands (institutional review board protocol no. 201700392). Female volunteers aged 18 years or older, without a history of any facial surgical procedures (e.g., orthognathic surgery, oncologic surgery, face lift, lipofilling) or minimally invasive aesthetic procedures (e.g., injectables), were randomly asked to participate. An equal distribution in age was pursued, resulting in 180 participants. A selection of modules of the validated FACE-Q questionnaire<sup>1–3</sup> was sent by e-mail. (See Table, Supplemental Digital Content 1, which shows the Rasch scores of all selected FACE-Q modules per age group, <http://links.lww.com/PRS/E628>.) The population was subdivided into five age categories: 18 to 29 years, 30 to 39 years, 40 to 49 years, 50 to 59 years, and 60 years or older. Association between overall satisfaction and age and associations between different FACE-Q modules were assessed by the Spearman rho test. Differences in FACE-Q scores between age groups were assessed by the Kruskal-Wallis test.

A total of 155 of the 180 participants who signed the informed consent completed the FACE-Q questionnaires. The median score of overall satisfaction with facial appearance was 59 (interquartile range, 51 to 70) (Fig. 1) and was not significantly associated with age ( $p = 0.776$ ) or with age group ( $p = 0.994$ ) (see Table, Supplemental Digital Content 1, <http://links.lww.com/PRS/E628>).

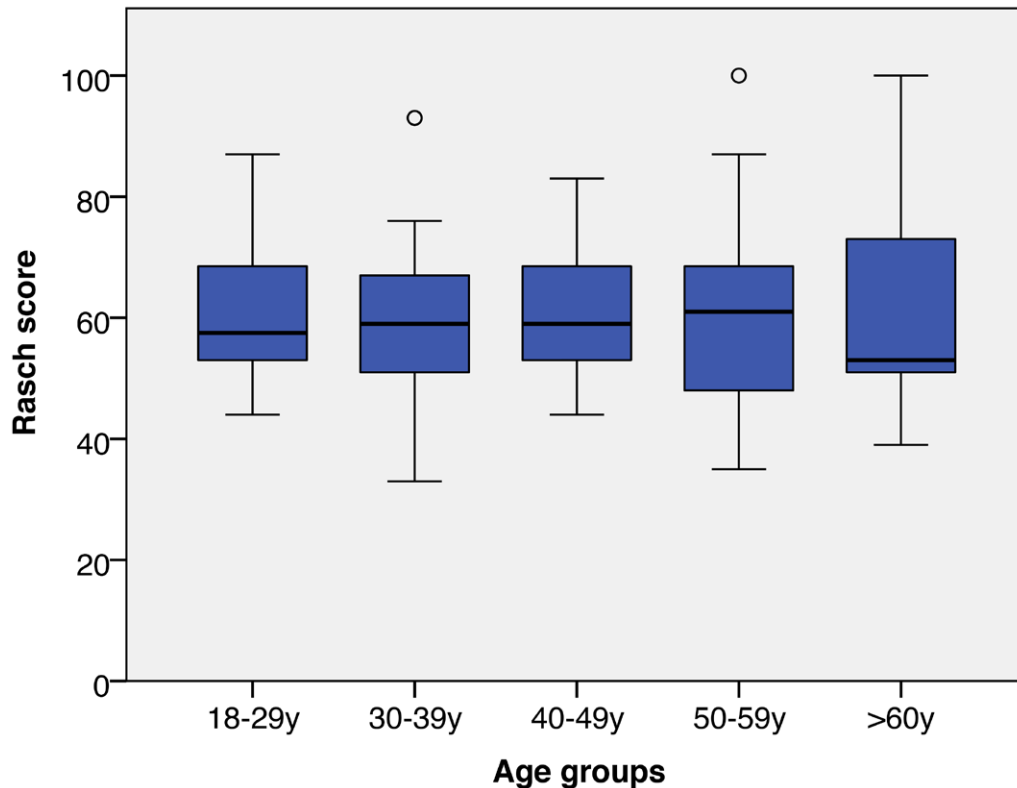
The percentages of the FACE-Q scores for the different parts of the face (i.e., cheeks, lower face and jawline, eyes and skin) were not correlated with age (see Table, Supplemental Digital Content 1, <http://links.lww.com/PRS/E628>). All the age-related modules, except crow's feet, were positively correlated with age, whereby older women reported that they were more bothered by their aging face. Significant correlations were found between psychological well-being and satisfaction with overall facial appearance (0.569;  $p < 0.000$ ) and psychological well-being and social function (0.669;  $p < 0.001$ ).

This prospective cross-sectional study showed a strong positive correlation between the overall facial appearance and psychological well-being, a correlation that also has been reported for specific patient populations.<sup>4,5</sup> The positive correlation indicates that psychological well-being is a valuable predictor for overall facial appearance.

For this study, a general Dutch population (Northern Europe) was used to assess satisfaction with facial appearance in women. Variations regarding aesthetic ideals and aesthetic demands between cultures might exist. Therefore, there is a need for cross-cultural validation studies to assess the normal range of the FACE-Q questionnaire for different cultural groups.

In conclusion, the overall average satisfaction with facial appearance, as determined by the FACE-Q scores, is not influenced by age in women that never

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**Fig. 1.** The median Rasch score for overall satisfaction with facial appearance is independent of age, *y*, years; open circles, outliers.

had any aesthetic facial procedure. However, elderly women reported significantly more complaints on specific modules referring to their aging face, such as wrinkles, upper eyelids, lips, and nasolabial folds. The obtained normative data set of the FACE-Q questionnaires in this study can be used as normative data to which results of preoperative and postoperative values of the FACE-Q after aesthetic facial procedures can be compared.

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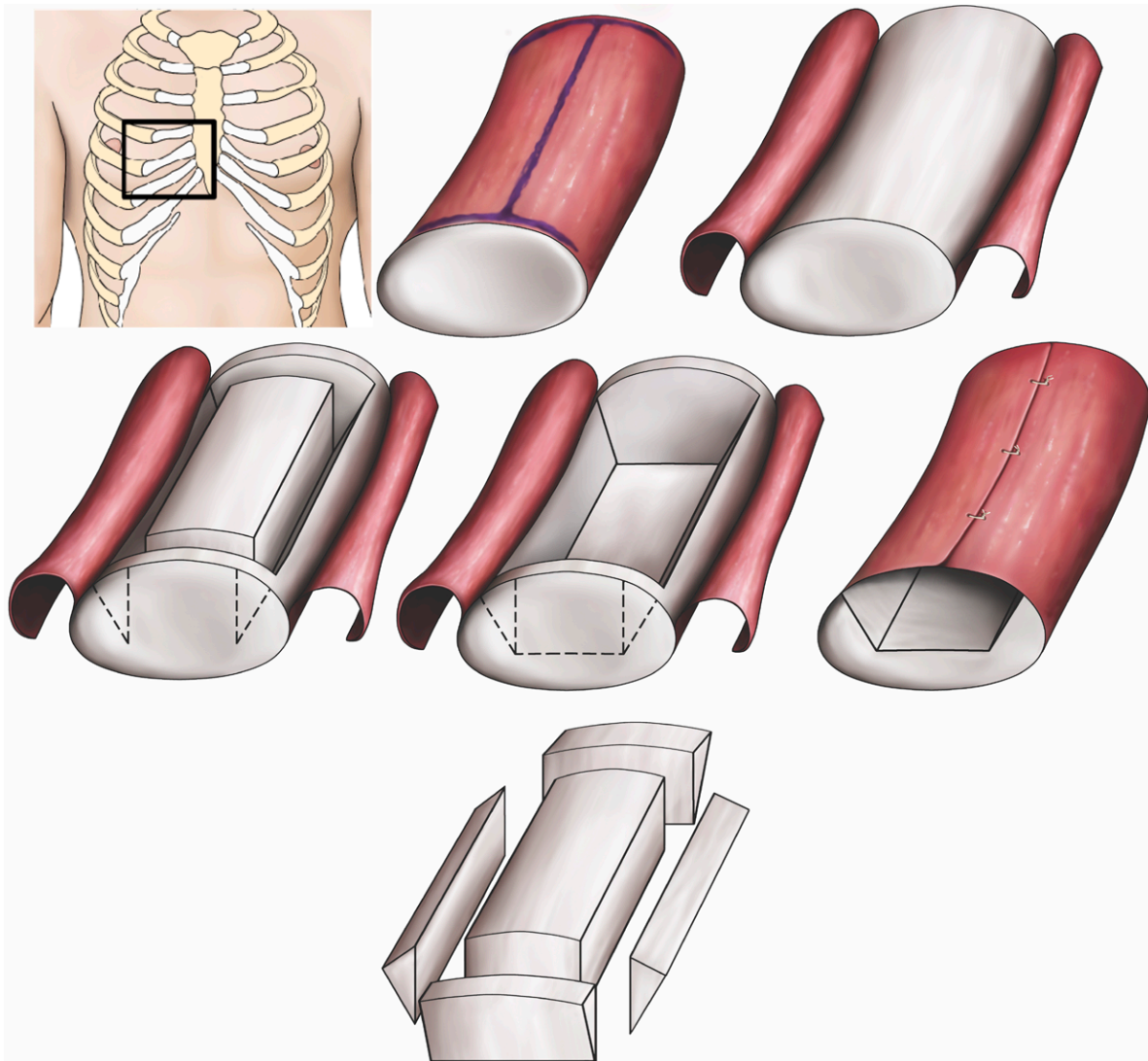
**e** **When Less Is More: A Costal Cartilage-Sparing Technique for Cartilage Graft Harvest in Rhinoplasty**

Success in revision rhinoplasty relies on the rhinoplasty surgeon's ability to use a variety of operative techniques to address both functional and aesthetic concerns. The use of autologous costal cartilage is an important tool in revision rhinoplasty and is particularly useful when the patient's cartilaginous septum has been resected during the index operation. The

disadvantages of using costal cartilage include donor-site morbidity in the form of pain, splinting, and pneumothorax. Cadaveric cartilage has emerged as an alternative graft source, but long-term results remain mixed.<sup>1,2</sup> In this communication, we present a costal cartilage-sparing technique for cartilage grafting in rhinoplasty.

This retrospective case series was approved by the institutional review board. Three patients underwent the proposed costal cartilage-sparing technique for revision rhinoplasty (one female and two male

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**Fig. 1.** Costal cartilage harvesting technique. (Above, left) An incision is made along the right fifth or sixth rib in male patients or along the inframammary fold in female patients. (Above, center and right) The perichondrium is incised and reflected to expose the costal cartilage. (Center) A wedge of cartilage was removed from the superior, inferior, medial, and lateral margins of the graft to achieve the appropriate angle to transect the central graft component along its base; the perichondrium is repaired after harvest. (Below) Costal cartilage graft following harvest.