



FACE-Q® | AESTHETICS

A User's Guide for Researchers and Clinicians

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1. What is FACE-Q | Aesthetics?

The FACE-Q Aesthetics is a rigorously developed patient-reported outcome measure (PROM) that can be used to evaluate outcomes of aesthetic facial procedures and products from the patient's perspective. FACE-Q Aesthetics can be used for any type of surgical or minimally invasive facial aesthetic treatment. This PROM has been used to evaluate the safety and effectiveness of facial aesthetic treatments in numerous clinical trials and to inform patient care in clinical practice [1].

2. How was FACE-Q | Aesthetics Developed and Validated?

The original FACE-Q Aesthetics included 39 independently functioning scales/checklists measuring facial appearance, health-related quality of life, and adverse effects [2-11]. To develop FACE-Q, we followed internationally recommended guidelines for patient-reported outcome instrument development to ensure that the FACE-Q meets requirements of regulatory bodies. Our team's mixed methods, multi-phase approach was patient-oriented as we engaged patients and healthcare providers in all phases of our research. Expert and patient input was crucial in designing the content of each FACE-Q scale and its subsequent evaluation. Our goal was to ensure that FACE-Q scales are valid and reliable, not only for health outcomes research, but also for use in clinical care with patients.

In Phase 1, concept elicitation interviews with patients (n=50) were conducted between January 2008 and February 2009. These interviews were audio recorded, transcribed, and coded using a line-by-line approach. The sample was aged 20 to 79 years, 88% female and 70% Caucasian. Participants had one or more of the following surgical or minimally invasive treatments: Botulinum toxin, skin resurfacing, fillers, blepharoplasty, facelift, rhinoplasty, neck lift, brow lift, and chin implants. The data were used to develop a conceptual framework and scales that were refined through 35 cognitive interviews with patients who were aged 20 to 68 years, 86% female and 59% Caucasian. To ensure the scales captured all clinically relevant content, they were also shown for feedback to 15 plastic surgeons, 4 dermatologists, 3 psychologists, and 4 office staff.

In the Phase 2 international field-test study, we recruited participants between June 2010 and March 2015 from plastic surgery and dermatology clinics in Canada, the United Kingdom, and the United States. Participants were aged 18 years and older and pre- or post-treatment for any facial cosmetic surgery or minimally invasive procedure. In the psychometric analysis, for each FACE-Q scale, the questions that represented the best indicators of outcome were retained based on their performance against a set of psychometric criteria. Two scales field-tested in an international sample included 90 body

contouring alongside 278 facial aesthetics patients. These scales measure expectations and appearance-related distress. The RMT analysis for the 2 scales supported their reliability and validity [10].

We recognize that establishing psychometric properties of a PROM is an iterative ongoing process. To this end, we conducted an updated online international study that involved 1369 people who had one or more minimally invasive facial aesthetic treatments. Using the data collected, we provided evidence of convergent validity for 11 FACE-Q scales, which were correlated with MERZ Aesthetics photo-numeric scales [12]. In addition, 342 participants completed a test-retest survey for 17 FACE-Q Aesthetic scales. All FACE-Q scales had an intraclass correlation coefficient > 0.70 [13]. For more information see our publications [12-13].

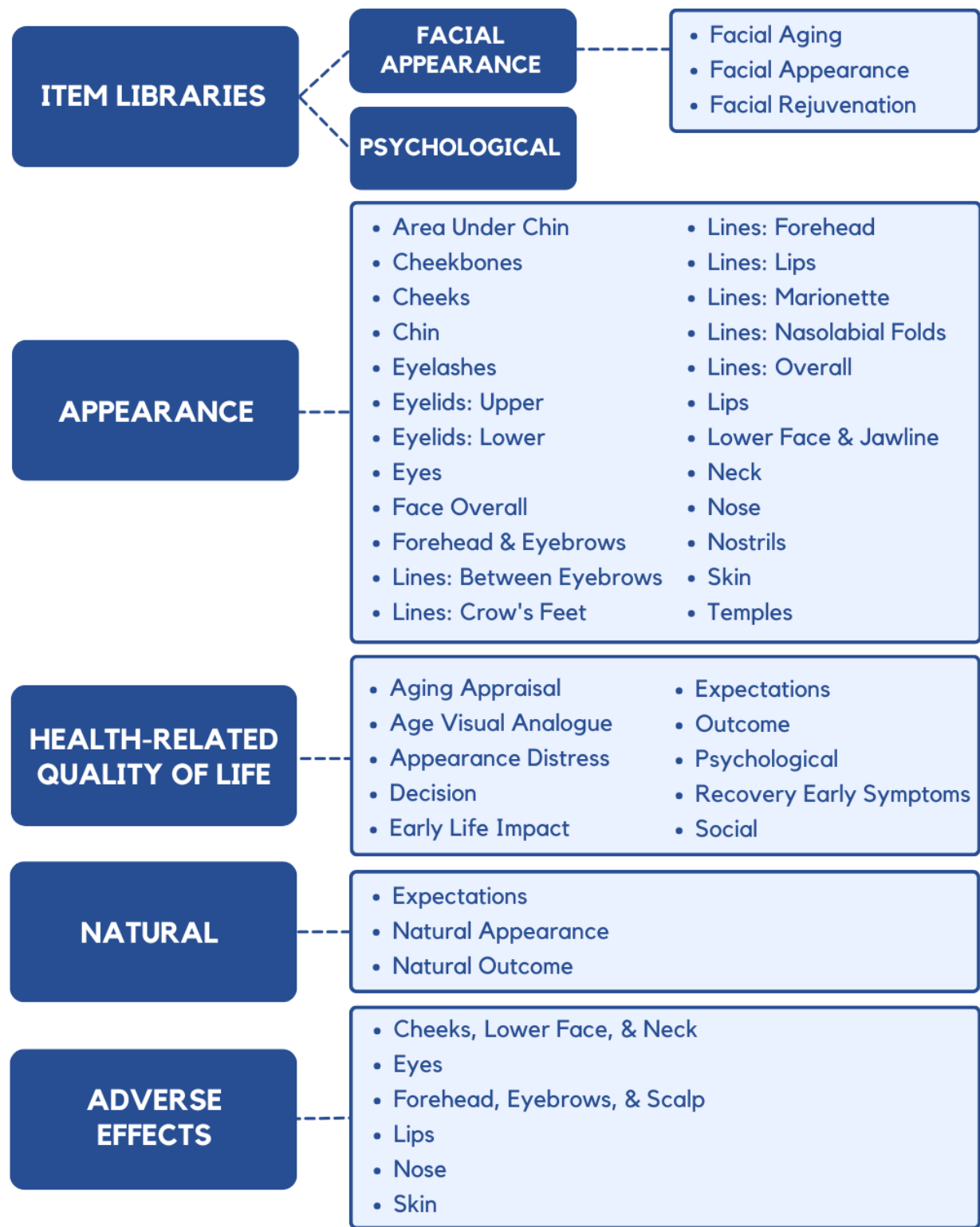
3. What is New about FACE-Q | Aesthetics?

The original FACE-Q Aesthetics did not include a scale to measure satisfaction with temple appearance. To fill this gap, we performed concept elicitation interviews with 15 adults who were either seeking or had received treatments for temple hollowing. Concepts were used to form a scale that was refined with input from 12 patients and 5 clinicians. This scale was field-tested in a sample of 171 adults seeking treatment for temple hollowing. The data fit the Rasch model ($\chi^2 = 20.47$, $df = 24$, $p = 0.67$), all items had ordered thresholds, and good item fit. Scale reliability was high, with person separation index and Cronbach's alpha values ≥ 0.93 . For more information, see our publications [14-15].

One of patients' top concerns after aesthetic treatment is looking unnatural. The original FACE-Q Aesthetics did not include scales to measure the concept of natural. To address this gap, three scales were developed and refined with input from 12 experts, 11 patients, and 184 online survey participants. Data from 1358 online participants provided evidence of scale reliability and validity for all three scales. Person separation index, Cronbach's alpha, and intraclass correlation coefficient values without extremes were ≥ 0.82 . The Natural module measures Expectations, Natural Appearance, and Natural Outcome. For more information, see our publication [16].

As part of the same study to develop the FACE-Q Natural module, our team created two item libraries to extend the range of measurement for the two most frequently used FACE-Q Aesthetics scales, i.e., Satisfaction with Face Overall and Psychological Function. These libraries were developed and refined with input from the sample described above (i.e., 12 experts, 11 patients, and 184 online survey participants). The field test included 1369 online participants. Item libraries provide an innovative means to customize scales to maximize content validity and minimize respondent burden. Short-form scales that we formed from the 42 satisfaction with facial appearance items provide examples of item library application (see Table 2). For more information, see our publication [17] and separate User's Guide.

Figure 1: FACE-Q Aesthetics Conceptual Framework



4. How is FACE-Q | Aesthetics Used?

Each year, millions of people around the world have facial cosmetic surgery procedures and/or minimally invasive treatments. The vast majority of both surgical and nonsurgical cosmetic procedures aim to rejuvenate facial appearance. While facial products and procedures are continually developed and tested, very little clinical research has included the patient perspective in clinical trials.

The FACE-Q was developed to meet the demands for a PROM for facial aesthetics, providing researchers and clinicians worldwide with a rigorously designed comprehensive PROM. The FACE-Q has been licensed for use to evaluate facial cosmetic products and treatments from the patient perspective by more 1000s of researchers and clinicians around the world.

The FACE-Q's modular approach provides the ability to select scales targeted to specific facial features, providing flexibility to choose the scales best suited to measure the endpoint of interest in clinical trials. The modular approach taken in the FACE-Q is described in an FDA publication on the value and use of PROs in assessing effects of medical devices (see pg 18): <https://www.fda.gov/files/about%20fda/published/Value-and-Use-of-Patient-Reported-Outcomes-%28PROs%29-in-Assessing-Effects-of-Medical-Devices.pdf>

The FACE-Q has been included in a growing number of FDA approved label claims that are posted on our website: <https://qportfolio.org/label-claims/>

5. FACE-Q Scales Qualified as Medical Device Development Tools

In April 2022, the US Food and Drug Administration (FDA) qualified 11 FACE-Q Aesthetics scales as a medical device development tool (MDDT). The MDDT program qualifies tools that medical device sponsors can use when developing and evaluating a device. The FDA evaluates the tool to make sure it can be used as intended and will produce psychometrically sound measurement. Using qualified tools improves the efficiency of regulatory review.

Qualified FACE-Q Self-Perceived Facial Appearance Scales: Cheeks, Face Overall, Lines: Between Eyebrows, Lines: Nasolabial Folds, Lips, Skin.

Qualified FACE-Q Health-Related Quality of Life Scales: Aging Appraisal, Early Life Impact, Outcome, Psychological, Social.

Table 1: Description of FACE-Q | Aesthetics scales and checklists

Name of scale	Domain	Items	Response Options	Recall	FK
Area Under Chin	appearance	5	extremely → not at all	past week	2.8
Cheekbones	appearance	10	dissatisfied → satisfied	past week	4.1
Cheeks	appearance	5	dissatisfied → satisfied	past week	2.6
Chin	appearance	10	dissatisfied → satisfied	past week	1.1
Eyelashes	appearance	7	dissatisfied → satisfied	past week	6.2
Eyelids - Lower	appearance	7	extremely → not at all	past week	5.0
Eyelids - Upper	appearance	7	extremely → not at all	past week	5.7
Eyes	appearance	7	dissatisfied → satisfied	past week	2.1
Face Overall	appearance	10	dissatisfied → satisfied	past week	0.9
Forehead & Eyebrows	appearance	6	dissatisfied → satisfied	past week	6.2
Lines: Between eyebrows	appearance	7	extremely → not at all	past week	5.6
Lines: Crow's Feet	appearance	7	extremely → not at all	past week	0.3
Lines: Forehead	appearance	7	extremely → not at all	past week	3.5
Lines: Lips	appearance	6	extremely → not at all	past week	2.8
Lines: Marionette	appearance	7	extremely → not at all	past week	4.8
Lines: Nasolabial Folds	appearance	5	extremely → not at all	past week	6.0
Lines: Overall	appearance	10	extremely → not at all	past week	0.2
Lips	appearance	10	dissatisfied → satisfied	past week	1.0
Lower Face & Jawline	appearance	5	dissatisfied → satisfied	past week	3.0
Neck	appearance	10	extremely → not at all	past week	1.6
Nose	appearance	10	dissatisfied → satisfied	past week	0.8
Nostrils	appearance	5	dissatisfied → satisfied	past week	1.4
Skin	appearance	12	dissatisfied → satisfied	past week	2.5
Temples	appearance	12	dissatisfied → satisfied	now	2.3
Aging Appraisal	HRQOL	7	disagree → agree	now	2.8
Age Visual Analogue Scale	HRQOL	1	-15 to + 15 years	n/a	3.6
Appearance Distress	HRQOL	8	disagree → agree	n/a	2.7
Decision	HRQOL	6	disagree → agree	n/a	0.2
Early Life Impact	HRQOL	12	most of time → not at all	past 2 days	8.4
Expectations	HRQOL	8	disagree → agree	n/a	1.5
Outcome	HRQOL	6	disagree → agree	n/a	3.0
Psychological Function	HRQOL	10	disagree → agree	past week	4.5
Recovery Early Symptoms	HRQOL	17	extremely → not at all	past 2 days	6.3
Social Function	HRQOL	8	disagree → agree	past week	4.9
Natural Appearance	natural	10	disagree → strongly agree	n/a	4.1
Natural Expectations	natural	15	disagree → strongly agree	n/a	3.5
Natural Outcome	natural	12	disagree → agree	n/a	3.2
Cheeks, Lower Face, Neck	AE	15	a lot → not at all	past week	4.7
Eyes	AE	6	extremely → not at all	past week	9.7
Forehead, Eyebrows, Scalp	AE	12	extremely → not at all	past week	7.3
Lips	AE	8	extremely → not at all	past week	4.7
Nose	AE	4	extremely → not at all	past week	6.2
Skin	AE	10	extremely → not at all	past week	3.0

AE= adverse effects; FK = Flesch-Kincaid grade level; NOTE: the names of scales may be abbreviated.

Table 2: Description of FACE-Q | Aesthetics Item Library Short-Form scales

Name of scale	Domain	Items	Response Options	Recall	FK
Facial Aging	appearance	10	dissatisfied → satisfied	now	3.1
Facial Appearance	appearance	10	dissatisfied → satisfied	now	2.5
Facial Rejuvenation	appearance	10	dissatisfied → satisfied	now	2.6

6. FACE-Q | Aesthetics Scales

Tables 1 and 2 show the FACE-Q scales and checklists, including number of items, response options, recall period, and Flesch-Kincaid (FK) grade reading level. Below is a brief description of the content of each scale and checklist.

APPEARANCE

Area Under Chin: This 5-item scale measures how bothered someone is by the appearance of the area under the chin. Items ask about loose and sagging skin, as well as how the chin looks in profile.

Cheekbones: This 10-item scale measures satisfaction with the appearance of the cheekbones. Items ask about shape, contour and symmetry, as well as how attractive, high, and well-defined the cheekbones look.

Cheeks: This 5-item scale measures satisfaction with the appearance of the cheeks. Items ask about fullness, symmetry, and attractiveness.

Chin: This 10-item scale measures satisfaction with the appearance of the chin. Items ask about size, width and shape, as well as how the chin looks from different angles and in photos.

Eyelashes: This 7-item scale measures satisfaction with the appearance of the eyelashes. Items ask about their fullness, length and color, as well as how attractive and feminine they make the eyes look.

Eyes: This 7-item scale measures satisfaction with the appearance of eyes. Items ask about how youthful, attractive and open the eyes look, as well as their shape.

Eyelids - Lower: This 7-item scale measures how bothered someone is by the appearance of their lower eyelids. Items ask about puffiness and wrinkled skin located in this area, as well as how tired or old the lower eyelids make someone look.

Eyelids - Upper: This 7-item scale measures how bothered someone is by the appearance of their upper eyelids. Items ask how saggy and heavy the upper eyelids look, as well as how tired or old they make someone look.

Face Overall: This 10-item scale measures satisfaction with the appearance of the entire face. Items ask how fresh and rested the face looks, as well as how the face looks from the side, in photos, under bright lights, and at the end of the day.

Forehead & Eyebrows: This 6-item scale measures satisfaction with the appearance the forehead and eyebrows. Items ask about position of the eyebrows, how even they look, the height of the forehead, as well as how natural, smooth and youthful the forehead looks.

Lines: Between Eyebrows: This 7-item scale measures how bothered someone is by the appearance of lines between their eyebrows. Items ask how deep and noticeable the lines are, how old they make someone look, and how they look when they frown or concentrate.

Lines: Crow's Feet: This 7-item scale measures how bothered someone is by the appearance of crow's feet (i.e., lines at the outer corner of the eyes). Items ask how old or tired they make someone look, and how they look when they smile or squint.

Lines: Forehead: This 7-item scale measures how bothered someone is by the appearance of horizontal forehead lines. Items ask about the number of lines, how deep and noticeable they are, as well as how tired and old they make someone look.

Lines: Lips: This 6-item scale measures how bothered someone is by the appearance of lines around the lips. Items ask about the number of lines, how deep and noticeable they are, as well as how old they make someone look.

Lines: Marionette: This 7-item scale measures how bothered someone is by the appearance of marionette lines (i.e., lines that run downward from the corner of the lips to the chin). Items ask about how angry, sad, old, and tired the lines make someone look.

Lines: Nasolabial Folds: This 5-item scale measures how bothered someone is by the appearance of nasolabial folds (i.e., deep lines that run downward from the sides of the nose). Items ask how deep the lines are, how old they make someone look, and how they look when the face is relaxed.

Lines: Overall: This 10-item scale measures how bothered someone is by the look of lines anywhere on their face. Items ask about the number of lines, how deep and noticeable they are, how they look when someone frowns or smiles, and how they look in the mirror and in photos.

Lips: This 10-item scale measures satisfaction with the appearance of the lips. Items ask about the size and shape of the lips, how full the upper and lower lips look, as well as how nice the lips look when someone smiles.

Lower Face & Jawline: This 5-item scale measures satisfaction with the appearance of the lower face (i.e., lower cheeks and jawline). Items ask about how prominent and sculpted the jawline looks, as well as how the jawline looks in profile.

Neck: This 10-item scale measures how bothered someone is by the appearance of the neck. Items ask about hanging, sagging, and wrinkled skin, as well as how the neck looks from the side and in collared shirts.

Nose: This 10-item scale measures satisfaction with the appearance of the nose. Items ask about the overall size, length and width, the tip and bridge of the nose, as well as how the nose looks from the side, in photos, and from every angle.

Nostrils: This 5-item scale measures satisfaction with the appearance of the nostrils. Items ask about their size, shape, and how even (well-matched) they look.

Skin: This 12-item scale measures satisfaction with appearance of facial skin (complexion). Items ask about how smooth, healthy, refreshed, attractive, even-colored, and hydrated the skin looks, as well as how it looks at the start and the end of the day.

Temples: This 12-item scale measures satisfaction with appearance of the temples. Items ask about the shape of the temples, how full they look, the age they make someone look, as well as how they look in photos and in a mirror.

Item Library Short-Form Facial Aging: This 10-item scale measures satisfaction with facial aging, asking about how the face looks when compared to others, when showing expression, when resting, and how lifted the face looks.

Item Library Short-Form Facial Appearance: This 10-item scale measures satisfaction with how the face looks. Items ask about how the face looks at the end of the day, from different angles, on a screen, and in photos.

Item Library Short-Form Facial Rejuvenation: This 10-item scale measures satisfaction with how rejuvenated the face looks. Items ask about how healthy, smooth, and youthful the face looks and how much it glows.

HEALTH-RELATED QUALITY OF LIFE

Aging Appraisal: This 7-item scale measures how a respondent feels about the age their face looks. Items ask about age when looking in the mirror and in photos.

Age Visual Analogue Scale: This item measures perceived age in comparison to chronological age on a visual analogue scale that runs from -15 years to +15 years.

Appearance Distress: This 8-item scale measures appearance-related distress in people seeking cosmetic treatments for the body or the face. Item ask someone to agree/disagree with statements about feelings (e.g., unhappy, stressed, down) and behaviors, such as avoiding being around people.

Decision: This 6-item scale measures satisfaction with their decision to undergo a facial procedure. Items ask someone to agree/disagree with statements about the procedure being what was wanted, needed, and worth the time and effort.

Early Life Impact: This 12-item scale measures recovery facial surgery or procedure. Items ask how often someone has experienced difficulty with facial function (e.g., eat, drink, move face or head), trouble sleeping, feeling tired or anxious, and being able to do usual activities.

Expectations: This 8-item scale measures how people seeking cosmetic treatments for the body (e.g., liposuction) or face (e.g., facelift, Botox) expect their appearance and life might change after treatment, e.g., good things will happen to them and they will look fantastic.

Outcome: This 6-item scale measures satisfaction with the result of a facial procedure. Items ask someone to agree/disagree with statements such the result being great, just as expected, and fantastic.

Psychological Function: This 10-item scale measures psychological function. Items ask respondents to answer with their facial appearance in mind. Items ask about feeling happy, attractive, confident and good about oneself.

Recovery Early Symptoms: This 17-item checklist measures how bothered someone is by adverse effects after a facial surgery or procedure. Items ask about swelling, tenderness, pain, tingling, numbness, and feeling lightheaded or feverish.

Social Function: This 8-item scale measures social function. Items ask respondents to answer with their facial appearance in mind. Items ask about feeling confident when meeting new people, in new social situations, and when participating in group situations.

NATURAL

Natural Appearance: This 10-item scale measures how natural someone's face looks after treatment. Respondents agree/disagree with statements about facial expression, features, having the right amount of treatment, and looking refreshed.

Natural Expectations: This 15-item scale measures expectations about treatment. The respondent is asked to agree/disagree with statements about wanting to look well-proportioned, natural, like themselves, and relaxed, as well as to be able to move their face.

Natural Outcome: This 12-item scale measures how natural the result is after treatment. Respondents agree/disagree with statements about the result looking subtle, the change being realistic, the amount of treatment being right, and noticeable, as well as whether the respondents agree/disagree that they look better.

ADVERSE EFFECTS

Cheeks, Lower Face & Neck: This 15-item checklist asks how bothered someone is by adverse effects specific to the cheeks, lower face, and neck. Items ask about parts of the face feeling numb, tightness, tingling, pulling, swelling, and difficulty with facial movements.

Eyes: This 6-item checklist measures how bothered someone is by eye-specific adverse effects. Items ask about dry eyes, excess tearing, irritation, and difficulty closing the eyes.

Forehead, Eyebrows, Scalp: This 12-item checklist asks how bothered someone is by adverse effects specific to the upper face. Items ask about forehead or scalp pain, tingling, numbness, and difficulty moving the forehead or showing expression.

Lips: This 8-item checklist asks how bothered someone is by lip-specific adverse effects. Items ask about the lips not looking or feeling smooth, swelling, numbness, and difficulty with moving the lips.

Nose: This 4-item checklist asks how bothered someone is by nose-specific concerns. Items ask about tenderness, swelling, and difficulty breathing.

Skin: This 10-item checklist asks how bothered someone is by skin-specific adverse effects. Items ask about redness, parts of the face not looking or feeling smooth to the touch, tightness, and itching.

7. Administration of FACE-Q | Aesthetics Scales

The FACE-Q is designed to be completed by patients on their own (self-report). Each scale is independently functioning, which means that only scales relevant to the clinical situation or research question need to be completed. The FACE-Q scales that measure appearance of face overall and HRQOL are relevant to all facial aesthetic patients. The FACE-Q scales that measure aspects of appearance and adverse effects are specific to facial areas (e.g., eyes, nose, cheeks). The modular approach makes it possible to use only

the most relevant scales for a patient population or research study. Brief instructions and the timeframe for reporting are provided at the start of each scale.

The FACE-Q was field-tested using online data collection, i.e., Research Electronic Data Capture System (REDCap), as well as paper-and-pencil. You may use the paper and pencil format or create an online version for ease of administration in non-profit academic research (e.g., REDCap) and in clinical care (e.g., hospital EMR such as Epic). If you plan to have an ePRO company capture and manage FACE-Q data collection, the ePRO company may need a license. If you have had or plan to have an ePRO company convert FACE-Q scales into an electronic format, e-conversion review and certification, please email qportfolioteam@gmail.com.

8. Scoring FACE-Q | Aesthetics

There is no overall or total FACE-Q score. Instead, the FACE-Q is composed of independently functioning scales that are each scored separately, adverse effects checklists, and a single item visual analogue scale.

To score a scale, the raw scores for the set of items in a scale are added together to produce a total raw score. The choice of how to handle missing data, such as whether or not to impute the mean when there is missing data, is ultimately up to the end user of FACE-Q. Our suggestion follows the most popular method for scoring when there is missing data, which is to impute a missing value by the mean response to completed items if more than 50% of items are answered. This method is recommended in the scoring manuals of numerous widely used PROMs, such as the SF-36 generic questionnaire used extensively in research for decades [18-19]. As such, FACE-Q scores can be computed if missing data is less than 50% of the scale's items. In this approach, the within person mean for the completed items can be imputed for the missing items prior to computing a total raw score. For example, if there is a 10-item scale and someone has not responded to all the items, but has responded to ≥ 5 items, all other items for that person can be imputed with a within-person mean (rounded to the nearest integer), and a summed score can be calculated. Alternatively, for a 10-item scale, if someone has responded to ≤ 4 items, the summed score for this person cannot be computed and is classified as missing data. Once a total raw score for the scale is computed, the Conversion Table can be used to convert the raw score into a score that ranges from 0 (worst) to 100 (best). The conversion, which linearizes the scores, is based on the findings from the RMT analysis.

Higher scores for all but 2 FACE-Q scales reflect a better outcome. The 2 scales where higher scores do not mean a better outcome are Expectations and Appearance-Related Distress. For these 2 scales, higher scores are indicative of expectations that are too high (unrealistic) and more appearance-related distress.

For all other scales, to ensure that higher scores represent a better outcome, the raw data needs to be scored as the example shown in the box below demonstrates. The Conversion Tables for converting raw scores into 0 to 100 scores are available after a licensing agreement is signed.

RAW SCORES FOR SCALE ITEMS

For scales that measure satisfaction with appearance, the raw data needs to be scored as follows: “Very dissatisfied” = 1; “Somewhat dissatisfied” = 2; “Somewhat satisfied” = 3; “Very satisfied” = 4. This includes the following scales: Cheekbones, Cheeks, Chin, Eyelashes, Eyes, Face, Item Library (IL) Short-Form (SF) Facial Aging, IL SF Facial Appearance, IL SF Facial Rejuvenation, Forehead & Eyebrows, Lips, Lower Face & Jawline, Nose, Nostrils, Skin, and Temples.

For the scales that measure bothered by their appearance, the raw data needs to be scored as follows: “Extremely” = 1; “Moderately” = 2; “A little” = 3; “Not at all” = 4. This includes the following scales: Area Under the Chin, Eyelids-Lower, Eyelids-Upper, Lines-Between the Eyebrows, Lines-Crow’s Feet, Lines-Forehead, Lines-Lips, Lines-Marionette, Lines-Nasolabial Folds, Lines-Overall, and Neck.

For scales that measure agree/disagree, the raw data needs to be scored as follows: “Definitely agree” = 4; “Somewhat agree” = 3; “Somewhat disagree” = 2; “Definitely disagree” = 1. This includes the following scales: Appearance-Related Distress, Decision, Expectations, Natural Outcome, Outcome, Psychological Function, and Social Function.

One exception is Aging Appraisal, which needs to be scored as follows: “Definitely agree” = 1; “Somewhat agree” = 2; “Somewhat disagree” = 3; “Definitely disagree” = 4. The Natural Appearance and Natural Expectations scales need to be scored as follows: “Disagree” = 1; “Slightly agree” = 2; “Mostly agree” = 3; “Strongly agree” = 4.

For the scale that measures amount of time, the raw data needs to be scored as follows: “Most of the time” = 1; “Some of the time” = 2; “Not at all” = 3. This includes the following scale: Early Life Impact of Treatment.

Below is an example of how to compute a scale score using the FACE-Q Satisfaction with Cheeks scale. First, you compute the **sum score** by adding the raw scores for items a – e. In the example below, the sum score = 10. Second, you will find the sum score in the Satisfaction with Cheeks Conversion Table, which is shown below. The sum score of 10 is then converted to 35.

For each question, circle only one answer. With your cheeks in mind (the side of your face below your cheekbones), in the past week, how satisfied or dissatisfied have you been with:

	Very Dissatisfied	Somewhat Dissatisfied	Somewhat Satisfied	Very Satisfied
a. How <u>symmetric</u> (similar) your cheeks look?	1	2	3	4
b. How <u>smooth</u> your cheeks look?	1	2	3	4
c. How <u>attractive</u> your cheeks look?	1	2	3	4
d. The <u>contour</u> (outline) of your cheeks?	1	2	3	4
e. The youthful <u>fullness</u> of your cheeks?	1	2	3	4

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FACE-Q™ - SATISFACTION WITH CHEEKS CONVERSION TABLE

Instructions: Higher scores reflect a better outcome. If missing data is less than 50% of the scale's items, insert the mean of the completed items. Use the Conversion Table below to convert the raw scale summed score into a score from 0 (worst) to 100 (best).

SUM SCORE	EQUIVALENT RASCH TRANSFORMED SCORE (0-100)
5	0
6	13
7	20
8	25
9	30
10	35
11	40
12	44
13	50
14	55
15	63
16	70
17	77
18	83
19	91
20	100

To score a checklist, the raw scores for the items in a checklist can be used to identify problems experienced by a patient or a sample. Checklists do not have Rasch Conversion Tables because the set of items did not work together statistically (i.e., the item set did not map out a clinical hierarchy for the concept of interest). Even though there are no Conversion Tables based on the RMT analysis for the checklists, they can provide clinically important information, such as monitoring for post-operative complications.

The FACE-Q has 1 stand-alone (i.e., single) item, i.e., the Age Visual Analogue scale. To score the single item, the raw score is used and represents a person's perceived age in comparison to their chronological age. The visual analogue scale runs from -15 years to +15 years. There is no Conversion Table for the single item.

The three published short-form scales from the FACE-Q item library can be scored using conversion tables that are provided upon signing a licensing agreement. To find out how to use and score customized scales using the FACE-Q Item Library, please read our separate User's Guide.

9. Conditions of Use

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For questions regarding study design and optimal use of FACE-Q scales contact either:

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10. Frequently Asked Questions

Do I have to use all of the FACE-Q / Aesthetics scales?

Each scale functions independently, therefore patients can be asked to complete one or all of the FACE-Q scales. It is not necessary for a patient to complete all of the scales or checklists as there is no overall or total FACE-Q score. A researcher or clinician may therefore select a subset of scales depending on the particular purpose of the study or use.

Can I delete or add or change any items or response options of the FACE-Q / Aesthetics?

You cannot delete or add or change the wording of any items or response options of the FACE-Q. Any modification to the content of the FACE-Q is prohibited under copyright laws. Also, making any changes to FACE-Q scales would invalidate their psychometric properties.

Can I reproduce FACE-Q / Aesthetics scales in a publication or other public document (e.g., PhD thesis)?

According to the licensing agreement, you cannot reproduce the content of FACE-Q scales verbatim in a publication. However, it is possible to show shortened versions of items. The short forms of items that can be used in a publication are shown in Table 3 below.

Can I translate FACE-Q / Aesthetics scales into a new language?

Yes, with permission, you can translate the FACE-Q into different languages. Before starting a translation, check our translation list on www.qportfolio.org to see if there is a translation in the language you need. If there is not a translation in the language you need, you will need to obtain permission from our team, sign a translation licensing agreement, and receive information on the method you need to follow. Email us at qportfolioteam@gmail.com for more information. Please note that the developers of the FACE-Q own the copyright of all translations of the FACE-Q.

Are there specific time points when patients complete the scales?

A researcher or clinician can decide the time points they would like to administer the scales.

Does it cost money to use the FACE-Q / Aesthetics?

Use of FACE-Q is free for non-profit users, including use by hospitals. For-profit users need to pay a licensing fee through Memorial Sloan Kettering Cancer Centre (see conditions of use above).

11. Acknowledgements

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Qualitative Phase: Pusic A, Klassen A, Cano S, Corderio P, Hazen A, Hirmand H, Kosowski T, McCarthy C, Rubin L, Stotland M, Van Laeken N, Wilkins EG. Measuring Satisfaction with Facial Appearance. Plastic Surgery Education Foundation Directed-Research Grant. Awarded Jan 2007.

Quantitative Phase: Pusic A, Klassen A, Cano S, Corderio P, Patel S, Shah J. Measuring Patient Satisfaction with Facial Appearance. Plastic Surgery Education Foundation/American Association of Otolaryngology Combined PSEF/AAO-HNSF Research. Awarded July 2006.

Table 3: Shortened items for FACE-Q | Aesthetics to use in a publication

APPEARANCE	look tired	noticeable	LOWER FACE	APPEAR. DISTRESS	RECOVERY
AREA UNDER CHIN	look old	puckered	prominent	feel unhappy	swelling
fullness	EYES	LINES-MARIONETTE	sculpted	feel stressed	tenderness
contour	shape	angry	profile	feel down	discomfort
sagging	attractive	sad	nice	feel anxious	bruised
loose	alert	tired	smooth	look normal	sore
profile	open	relaxed	NECK	ugly	tight
CHEEKBONES	bright-eyed	deep	cover up	avoid people	pain
symmetric	nice	old	compared	doing things	numbness
high	youthful	noticeable	lines	DECISION	stinging
photos	FACE	LINES-NASOLABIAL	collars	time effort	tingling
shape	symmetric	compared	hanging	worth money	throbbing
contour	balanced	smile	grimace	wanted	burning
sculpted	proportioned	old	profile	needed	tired
different angles	end of day	relaxed	wrinkled	want look	itching
attractive	fresh	deep	old	changed life	lightheaded
prominent	rested	LINES-OVERALL	sagging	EARLY LIFE IMPACT	headache
well-defined	profile	deep	SKIN	regret	feverish
CHEEKS	photos	photos	end of day	anxious	SOCIAL
symmetric	wake-up	relaxed	healthy	sleeping	first impressions
smooth	bright lights	smile	attractive	worthwhile	new person
attractive	FOREHEAD	number	smooth	tired	meet people
contour	position	noticeable	clear	head movements	make friends
fullness	even	frown	refreshed	usual activities	group situations
CHIN	forehead height	old	hydrated	facial movements	social situations
style	natural	mirror	wake up	drinking	around strangers
size	youthful	bright lights	radiant	eating	room of people
width	smooth	NOSE	tone	social situations	NATURAL
suits face	LINES-EYEBROWS	width	pores	intimacy	APPEARANCE
sculpted	relaxed	length	even-colored	EXPECTATIONS	natural
shape	old	bridge	TEMPLES	look fantastic	expressions
profile	angry	suits face	compared others	look great	balanced
photos	noticeable	straight	balanced	people proud	like me
projects	deep	size	compliment face	transformed	right amount
every angle	concentrating	shape	photos	good things	well-proportioned
EYELASHES	frowning	photos	bright light	fit in	better
nice	LINES-CROW'S	tip	age	relationships	refreshed
feminine	relaxed	every angle	turn face	new people	rested
dark	noticeable	NOSTRILS	profile	OUTCOME	people notice
long	tired	size	shape	pleased	EXPECTATIONS
attractive	number	shape	mirror	great	well-proportioned
thick	old	show	full	expected	rested
full	smile	well matched	youthful	look in mirror	natural
EYELIDS-LOWER	squint	overall	HRQOL	fantastic	refreshed
excess fat	LINES-FOREHEAD	LIPS	AGING APPRAISAL	miraculous	better
excess skin	talking	shape lower lip	don't recognize	PSYCH	relaxed
puffiness	relaxed	suit face	look in mirror	like	like me
noticeable lines	noticeable	smile	bothered	positive	not overdone
crepey skin	tired	full lower lip	older	okay	balanced
look old	old	style	worried	happy	expressions
look tired	deep	shape upper lip	photos	comfortable	move face
EYELIDS-UPPPER	number	turned up	reflection	accepting	people notice
skin on lashes	LINES-LIPS	size		good	look happy
saggy	compared	relaxed		confident	right amount
droopy	old	full upper lip		attractive	subtle
eyelid folds	deep			great	
heavy	number				

NATURAL	sensitive	FOREHEAD	numbness	IL SHORT-FORMS	wake up
OUTCOME	tingling	pain	moving	FACIAL AGING	photo
natural	scars feel	tingling	too big	compare people	up close
not overdone	discomfort	numb	NOSE	show expression	bright lights
subtle	itching	unnatural	thick skin	full (plump youthful)	FACIAL REJUVENATION
realistic	scars look	sensitivity	tenderness	age	healthy
good	pulling	show expression	breathing	face relaxed	smooth
like	swelling	move eyebrows	bumps	lifted	fresh
better	feeling hard	eyebrows uneven	SKIN	smooth	youthful
right amount	expressions	eyebrows too high	redness	youthful	radiant
attractive	bruising	hairline position	skin tone	expression at rest	rejuvenated
noticeable	movements	scars look	sensitivity	rested	vibrant
love	EYES	scars feel	blotchy	FACIAL APPEARANCE	glows
like change	eyelid scars	LIPS	look smooth	look best	rested
ADVERSE EFFECTS	dry eyes	feel smooth	feel smooth	compare people	flawless
CHEEKS	eye irritation	asymmetric	tightness	end of day	
numb	excessive tearing	look smooth	itching	different angles	
tightness	look hallowed out	swelling	scarred	on screen	
not smooth	close eyes	unnatural	burning	profile	

12. Publications Related to FACE-Q Development and Validation

1. Gallo L, Kim P, Yuan M, Gallo M, Voineskos SH, Pusic AL, Klassen AF, Cano SJ. Measuring the impact of surgical and nonsurgical facial cosmetic interventions using FACE-Q Aesthetic module scales: a systematic review and meta-analysis. *Plast Surg (Oakv)*. 2024 Jan 23;22925503231225480.
2. Klassen AF, Cano SJ, Scott A, Snell L, Pusic AL. Measuring patient-reported outcomes in facial aesthetic patients: development of the FACE-Q. *Facial Plast Surg*. 2010 Aug;26(4):303-9.
3. Pusic AL, Klassen AF, Scott AM, Cano SJ. Development and psychometric evaluation of the FACE-Q satisfaction with appearance scale: a new patient-reported outcome instrument for facial aesthetics patients. *Clin Plast Surg*. 2013 Apr;40(2):249-60.
4. Panchapakesan V, Klassen AF, Cano SJ, Scott AM, Pusic AL. Development and psychometric evaluation of the FACE-Q Aging Appraisal Scale and Patient-Perceived Age Visual Analog Scale. *Aesthet Surg J*. 2013 Nov 1;33(8):1099-109.
5. Klassen AF, Cano SJ, Scott AM, Pusic AL. Measuring outcomes that matter to face-lift patients: development and validation of FACE-Q appearance appraisal scales and adverse effects checklist for the lower face and neck. *Plast Reconstr Surg*. 2014 Jan;133(1):21-30.
6. Klassen AF, Cano SJ, Schwitzer JA, Scott AM, Pusic AL. FACE-Q scales for health-related quality of life, early life impact, satisfaction with outcomes, and decision to have treatment: development and validation. *Plast Reconstr Surg*. 2015 Feb;135(2):375-86.

7. Schwitzer JA, Klassen AF, Cano SJ, Baker SB, East C, Pusic AL. Measuring Satisfaction with Appearance: Validation of the FACE-Q Scales for the Nose, Forehead, Cheekbones, and Chin. *Plast Reconstr Surg*. 2015 Oct;136(4 Suppl):140-1.
8. Klassen AF, Cano SJ, East CA, Baker SB, Badia L, Schwitzer JA, Pusic AL. Development and Psychometric Evaluation of the FACE-Q Scales for Patients Undergoing Rhinoplasty. *JAMA Facial Plast Surg*. 2016 Jan-Feb;18(1):27-35.
9. Klassen AF, Cano SJ, Schwitzer JA, Baker SB, Carruthers A, Carruthers J, Chapas A, Pusic AL. Development and Psychometric Validation of the FACE-Q Skin, Lips, and Facial Rhytids Appearance Scales and Adverse Effects Checklists for Cosmetic Procedures. *JAMA Dermatol*. 2016 Apr;152(4):443-51.
10. Klassen AF, Cano SJ, Alderman A, East C, Badia L, Baker SB, Robson S, Pusic AL. Self-Report Scales to Measure Expectations and Appearance-Related Psychosocial Distress in Patients Seeking Cosmetic Treatments. *Aesthet Surg J*. 2016 Oct;36(9):1068-78.
11. Klassen AF, Cano SJ, Grotting JC, Baker SB, Carruthers J, Carruthers A, Van Laeken N, Sykes JM, Schwitzer JA, Pusic AL. FACE-Q Eye Module for Measuring Patient-Reported Outcomes Following Cosmetic Eye Treatments. *JAMA Facial Plast Surg*. 2017 Jan 1;19(1):7-14.
12. Gallo L, Kim P, Churchill I, Rae C, Voineskos SH, Thoma A, Pusic AL, Cano SJ, Klassen AF. Establishing Convergent Validity of the Face-Q Aesthetics Module Scales. *Aesthet Surg J*. 2025 Jan 7:sjaf003. Online ahead of print.
13. Gallo L, Rae C, Kim PJ, Voineskos SH, Thoma A, Pusic AL, Klassen AF, Cano SJ. Establishing test-retest reliability and the smallest detectable change of FACE-Q Aesthetic Module scales. *J Plast Reconstr Aesthet Surg*. 2024 Aug;95:231-238.
14. Kaur MN, Baradaran S, Patel V, Klassen AF. Measuring outcomes for temple hollowing treatment: Content validity of new and existing FACE-Q scales. *J Cosmet Dermatol*. 2022 Jan;21(1):167-175.
15. Kaur MN, Patel VD, Leung KX, Klassen AF. Psychometric validation of the FACE-Q Aesthetics Satisfaction with Temples scale in individuals seeking minimally invasive treatments to improve temple hollowing. *J Cosmet Dermatol*. 2024; Nov 23(11):3517-3524.
16. Klassen AF, Cano S, Mansouri J, Poulsen L, Rae C, Kaur M, Dayan S, Tsangaris E, Armstrong K, Klok J, Santosa K, Pusic A. "I Want to Look Natural": Development and Validation of the FACE-Q Aesthetics Natural Module. *Aesthet Surg J*. 2024 Jan 5:sjad374.
17. Klassen AF, Pusic AL, Kaur M, Rae C, Poulsen L, Mansouri J, Tsangaris E, Dayan S, Klok J, Armstrong K, Santosa K, Cano S. Extending the Range of Measurement for

Minimally Invasive Treatments by Adding New Concepts to FACE-Q Aesthetics Scales. *Plast Reconstr Surg Glob Open*. 2024 Apr 10;12(4):e5736.

18. Ware JE, Kosinski MA, Keller SD. SF-36 physical and mental health summary scales: a user's manual. Boston, Massachusetts, Health Inst, New England Med. Center. 1995.
19. Ware JE, Snow KK, Kosinski M, Gandek B. SF-36 Health Survey manual and interpretation guide. Boston, Massachusetts, Nimrod Press. 1993.
20. Gallo L, Churchill I, Kim P, Rae C, Voineskos SH, Thoma A, Pusic AL, Cano SJ, Klassen AF. Patient Factors That Impact FACE-Q Aesthetics Outcomes: An Exploratory Cross-Sectional Regression Analysis. *Aesthet Surg J*. 2025 Feb 11:sjaf027. Online ahead of print.