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INSTALLING REPLACEMENT HAIR

Abstract

Example methods of installing replacement hair includes installing a fitted scalp mesh over natural hair of a subject experiencing hair loss or hair thinning and pulling from about 80% to 100% of the natural hair beneath the fitted scalp mesh through the fitted scalp mesh as a plurality of natural hair groupings. The method can also include forming a plurality of hair tracks oriented transverse relative to the lateral spacing with multiple natural hair groupings having different starting locations along the individual hair tracks. Individual natural hair groupings of the individual hair track can pass through and are secured by at least two hair fasteners along the individual hair track. Additionally, the method can include installing at least one hair weft on the fitted scalp mesh.

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Background/Summary

[0001] The present application claims the benefit of U.S. Provisional Patent Application No. 63/552,326, filed on Feb. 12, 2024, the entirety of which is incorporated herein by reference.

BACKGROUND

[0002] There are several different types of hair extensions for increasing the thickness and length of hair. However, when dealing with significant hair replacement which can occur as a result of a medical condition, e.g., cancer, alopecia, trichotillomania (hair pulling disorder), hormone imbalance, medication-induced hair loss, etc., using extensions in a conventional manner can be problematic. Hair replacement for these and other conditions using techniques like braiding, weaving, tying, knotting, etc. can be a challenge due to reduced hair thickness, brittle hair, insufficient hair to attach extension, etc. Additionally, mechanical attachment devices that directly attach to and leverage diminished natural hair volumes may be uncomfortable or even painful due to the weight of the extensions. Furthermore, the use of adhesives at too many locations where natural hair exists can be painful to remove and can damage the hair further, for example. In accordance with these shortcomings, it would be desirable to provide a hair replacement system that can be more secure without putting additional stress on the already lower volume of natural hair.

Description

DESCRIPTION OF THE DRAWINGS

[0003] FIG. **1** illustrates multiple views of a subject wearing an example fitted scalp mesh in accordance with the present disclosure;

[0004] FIG. **2** is a schematic top view of a subject wearing the example fitted scalp mesh of FIG. **1** with natural hair groupings pulled through from an interior of the fitted scalp mesh to an exterior of the scalp mesh in an example array-like pattern with lateral spacing and spacing transverse relative to the lateral spacing in accordance with the present disclosure;

[0005] FIG. **3** is a schematic top view of the subject of FIG. **2** with the natural hair groupings held in place with example hair fasteners, e.g., microbeads, in accordance with the present disclosure;

[0006] FIG. **4** is a schematic underside view of an example top closure hair weft having a front dimension long enough to extend laterally beyond both apexes of the frontal-temporal recesses of the subject in accordance with the present disclosure;

[0007] FIG. **5** is a schematic underside view of an example top closure hair weft having a front dimension long enough to extend laterally along the temporal scalp of the subject, e.g., up to extending from side hairline to side hairline from ear to ear, in accordance with the present disclosure;

[0008] FIG. **6** is a schematic top view of a subject wearing an example fitted scalp mesh with natural hair groupings pulled through and secured using hair fasteners, and which further illustrates a schematic top view of the top closure hair weft illustrated in FIG. **4** as sewn in place over the fitted scalp mesh at the frontal scalp in accordance with the present disclosure;

[0009] FIG. **7** is a schematic top view of a subject wearing an example fitted scalp mesh with natural hair groupings pulled through and secured using hair fasteners, and which further illustrates a schematic top view of the top closure hair weft illustrated in FIG. **5** as sewn in place over the fitted scalp mesh at the frontal scalp in accordance with the present disclosure; and

[0010] FIG. **8** is a schematic back view of a head of a subject with at least two finishing hair wefts positioned beneath or behind the top closure hair weft (not shown), in accordance with the present disclosure.

DETAILED DESCRIPTION

[0011] In accordance with examples herein, the present disclosure is drawn to methods of installing replacement hair as well as hair replacement systems that are suitable for subjects with reduced hair volume, damaged hair, or other similar conditions without substantially damaging the existing natural hair.

[0012] In accordance with this, in one example, methods of installing replacement hair can include installing a fitted scalp mesh over natural hair of a subject experiencing hair loss or hair thinning, e.g., where the subject has at least 50% natural hair with a majority of the natural hair being at least 2 inches in length, and also pulling from about 80% to 100% of the natural hair beneath the fitted scalp mesh through the fitted scalp mesh to an exterior of the fitted scalp mesh. The natural hair can be pulled through as a plurality of natural hair groupings having lateral spacing of about 0.5 inch to about 2 inches on average. These hair replacement methods can also include forming a plurality of hair tracks along the exterior of the fitted scalp mesh. The individual hair tracks can be oriented transverse relative to the lateral spacing with multiple natural hair groupings having different starting locations positioned along the individual hair tracks. The individual natural hair groupings of the individual hair track(s) can pass through and be secured by at least two hair fasteners along the individual hair track. These methods can also include installing at least one hair weft on the fitted scalp mesh.

[0013] In other examples, methods of installing replacement hair can include installing a fitted scalp mesh over natural hair of a subject experiencing hair loss or hair thinning, e.g., where the subject has at least 50% natural hair with a majority of the natural hair being at least 2 inches in length, and also pulling from at least about 60% of the natural hair beneath the fitted scalp mesh through the fitted scalp mesh to an exterior of the fitted scalp mesh. The natural hair can be pulled through as a plurality of natural hair groupings having lateral spacing of about 1 inch or less on average and can also be spaced apart in a direction transverse to the lateral spacing at about 1.5 inches or less on average. The methods of installing replacement hair can also include forming a plurality of hair tracks along the exterior of the fitted scalp mesh where individual hair tracks are oriented transverse relative to the lateral spacing and include multiple natural hair groupings having different starting locations along the individual hair tracks. Individual natural hair groupings of the individual hair track(s) can pass through and are secured by at least two hair fasteners along the individual hair track. In further detail, the methods can include installing at least one hair weft on the fitted scalp mesh.

[0014] In other examples, methods of installing replacement hair can include installing a fitted scalp mesh over natural hair of a subject experiencing hair loss or hair thinning, e.g., where the subject has at least 50% natural hair with a majority of the natural hair being at least 2 inches in length, and also pulling from at least about 60% of the natural hair beneath the fitted scalp mesh through the fitted scalp mesh to an exterior of the fitted scalp mesh. The natural hair can be pulled through as a plurality of natural hair groupings having lateral spacing of about 0.5 inch to about 2 inches on average. The methods of installing replacement hair can also include forming a plurality of hair tracks along the exterior of the fitted scalp mesh where individual hair tracks are oriented transverse relative to the lateral spacing and include multiple natural hair groupings having different starting locations along the individual hair tracks. The individual natural hair groupings of the individual hair track can pass through and be secured by at least two hair fasteners along the individual hair track. In further detail, these methods can include stitching a top closure hair weft to the fitted scalp mesh at a location over a frontal scalp such that a perimeter of a top closure support of the top closure hair weft extends laterally beyond both apexes of the frontal-temporal recesses of the subject along the front hairline. The methods can also include stitching a finishing weft support of a finishing hair weft to the fitted scalp mesh. In these examples, the finishing weft support can have a thickness less than about 1 mm.

[0015] In other examples, methods of installing replacement hair can include installing a fitted

scalp mesh over natural hair of a subject experiencing hair loss or hair thinning where the subject has at least 50% natural hair with a majority of the natural hair being at least 2 inches in length, and pulling from about 80% to 100% of the natural hair beneath the fitted scalp mesh through the fitted scalp mesh to an exterior of the fitted scalp mesh. The natural hair can be pulled through as a plurality of natural hair groupings spaced apart laterally at from about 1 inch or less on average and also spaced apart in a direction transverse to the lateral spacing at about 1.5 inches or less on average. These hair replacement methods can also include forming a plurality of hair tracks along the exterior of the fitted scalp mesh that are oriented transverse relative to the lateral spacing and can include multiple natural hair groupings having different starting locations along the individual hair tracks. The individual natural hair groupings of the individual hair track(s) can pass through and be secured by at least two hair fasteners along the individual hair track. Additional features include stitching a top closure hair weft to the fitted scalp mesh at a location over a frontal scalp such that a perimeter of a top closure support of the top closure hair weft extends laterally beyond both apexes of the frontal-temporal recesses of the subject, and stitching a finishing weft support of a finishing hair weft to the fitted scalp mesh. The finishing weft support can have, for example, a thickness less than about 1 mm.

[0016] In other examples, systems for installing replacement hair can include a fitted scalp mesh or a scalp mesh material adaptable to form a fitted scalp mesh sufficient to cover at least a majority of the natural hair of a subject. The fitted scalp mesh or scalp mesh material can have openings sufficient to pull through about 80% to 100% of the natural hair from beneath the fitted scalp mesh to an exterior of the fitted scalp mesh in natural hair groupings spaced apart laterally at from about 0.5 inch to about 2 inches on average and also spaced apart in a direction transverse to the lateral spacing at about 0.5 inch to about 2 inches. The systems for installing replacement hair can also include a top closure hair weft having a size sufficient to laterally cover a front hairline of a subject at the frontal scalp and which extends laterally beyond both apexes of the frontal-temporal recesses of the subject, and a plurality of finishing hair wefts adapted to extend outward from the top closure hair weft along the fitted scalp mesh.

[0017] In each of the above methods and systems, a variety of details can be relevant to the various embodiments. For example, installing the fitted scalp mesh can include shaping the fitted scalp mesh from a flexible mesh material by gathering a portion of the flexible mesh material to form a fitted shape with excess flexible mesh material positioned at an interior of the fitted shape, stitching the flexible mesh material with the excess flexible mesh being excluded from the fitted shape, and removing at least 90% of the excess flexible mesh from the interior of the fitted shape to form the fitted scalp mesh. In further detail, pulling the hair groupings through the fitted scalp mesh can include pulling at least 60%, at least 70%, at least 80%, or at least 90% of the subject's natural hair through the fitted scalp mesh to the exterior thereof. As a note, though the natural hair in the figures show the hair being pulled through in a specific direction, the subject's natural hair can alternatively be pulled through the mesh in the direction that best suits the hair pattern of the subject. For example, the natural hair can be pulled through from the top of the head toward the side (in the direction of the ears). Likewise, the natural hair can be pulled through in multiple directions, depending on how the natural hair lays for a given subject.

[0018] The hair groupings (and hair tracks in general) can be secured using a microbead no larger than about 4 mm, e.g., from about 0.2 mm to about 4 mm, from about 0.5 mm to about 4 mm, from about 1 mm to about 4 mm, or from about 2 mm to about 3.5 mm in size. The lateral spacing of the hair groupings can be in alignment with a front hairline of the subject forming laterally spaced rows from front to back or any other direction that makes sense for the subject's natural hair. Each row can be spaced apart in a direction transverse to the lateral spacing as well. The lateral spacing can be from about 0.5 inch to about 2 inches, from about 0.5 inch to about 1.5 inch, or from about 0.5 inch to about 1 inch, and the rows can be spaced in the transverse direction at from about 0.5 inch to about 2 inches, from about 0.5 inch to about 1.5 inch, or from about 0.5 inch to about 1 inch. The

transverse direction may be in a ventral to dorsal direction, for example. Installing at least one hair weft can include stitching a top closure hair weft to the fitted scalp mesh at a location over a frontal scalp such that a perimeter of a top closure support of the top closure hair weft extends laterally beyond both apexes of the frontal-temporal recesses of the subject, e.g., frontal top closure hair weft. In some examples, the perimeter of the top closure support can extend laterally to about each lower hairline of each temporal scalp, e.g., frontal-temporal top closure hair weft. Installing the top closure hair weft can also include stitching a top closure support of the top closure hair weft to the fitted scalp mesh at a location over a frontal scalp extending beyond the apex of the front-temporal recess. Finishing hair wefts can likewise be stitched to the fitted scalp mesh at a distance from the top closure support from about 0.5 inch to about 2 inches, from about 0.5 inch to about 1.5 inch, or from about 0.5 inch to about 1 inch. Stitching the finishing weft support to the fitted scalp mesh can be carried out at a location opposite the direction of hair flow from the finishing hair weft, e.g., "above" the bound finishing weft edge. The bound finishing weft edge can be hand-tied, e.g., less than about 1 mm thick, or can be formed of a polymer, such as polyurethane, e.g., less than about 0.15 mm.

[0019] In each of the various embodiments described herein, whether discussing the methods or systems herein, there may be some common features of each of these embodiments that further characterize options in accordance with principles discussed herein. Thus, any discussion of the top closure hair wefts is applicable to any of the methods and/or systems described herein, even if not specifically mentioned in the context of a specific embodiment.

[0020] It is also to be understood that this invention is not limited to the particular structures, process steps, or materials disclosed herein, but is extended to equivalents thereof as would be recognized by those ordinarily skilled in the relevant arts. It should also be understood that terminology employed herein is used for the purpose of describing particular examples only and is not intended to be limiting. The same reference numerals in different drawings represent a corresponding element of the same or similar embodiment. Numbers provided in flow charts and processes are provided for clarity in illustrating steps and operations and do not necessarily indicate a particular order or sequence.

[0021] The hair replacement methods and systems described herein are most effective when a subject has at least 50% of their natural hair and at least 2 inches of average length. A subject with up to 100% of their natural hair can also benefit from these methods and systems, particularly if the subject has very short, brittle, and/or thin hair. If the hair is too short and/or too brittle (or fragile), less than 50% natural hair and less than 2 inches of length can present challenges. With that said, the use of the fitted scalp mesh as described herein can provide excellent support for installing the various types of hair wefts as described herein. In particular, these hair replacement methods and/or systems can even be effective for a subject with hair loss or thinning due to a medical condition, e.g., cancer, alopecia, trichotillomania (hair pulling disorder), hormone imbalance, medication-induced hair loss, etc.

Installing Fitted Scalp Mesh

[0022] Referring now to the systems and methods more specifically for hair replacement, reference is now made to FIG. **1**, which illustrates four different views of a subject with a fitted scalp mesh as initially installed over at least a portion of the natural hair **108** of a subject. The term "natural hair" in this disclosure refers to the hair that grows on the head, excluding facial hair, which can be referred to here as the "natural hair region" of the head. The natural hair region of the head incudes a frontal scalp **102**A, a crown **102**B, a pair of temporal scalps **102**C, an upper front hairline **104**A at the front of the frontal scalp which may have some hair or may be devoid of hair depending on the hair loss pattern or state of the subject, lateral front hairlines **104**B, side hairlines **106**A, and a back hairline **106**B. The fitted scalp mesh **112**, which can be constructed of a flexible mesh material, can have an exterior **114** and an interior (not shown, but facing the scalp of the subject). In forming the fitted scalp mesh from a stretchable flat scalp mesh material, a portion or multiple portions of the

scalp mesh material can be gathered as excess mesh material, stitched, and excess mesh material removed, or may be gathered, excess mesh material removed, and then stitched. In FIG. **1**, scalp mesh stitching **116** is shown as two diagonal lines along the back of the scalp (beneath the crown), though there are other locations where gathering, stitching, and removal (cutting away) may occur, depending on the needs of the subject. In some examples, the excess that is gathered and removed may face the interior of the resulting fitted scalp mesh to provide a smoother exterior look. By cutting or otherwise removing the excess mesh material that would otherwise face inward (toward the scalp), the fitted scalp mesh can be flattened against the scalp to a greater degree and can also provide acceptable comfort to the scalp of the subject. In removing the excess mesh material (or flexible mesh material), typically at least 90%, at least 95% or at least 99% is removed, provided care is taken to leave enough material so that the fitted scalp mesh remains properly stitched together at the scalp mesh stitching site. In further detail regarding FIG. **1**, there are two different sizes of the fitted scalp mesh shown, though any of a number of sizes can be used. In this example, the fitted scalp mesh can be sized as shown by scalp mesh portion **118**A, or can be sized as shown by scalp mesh portion **118**A combined with scalp mesh portion **118**B.

[0023] Referring now to FIG. **2**, an example of natural hair **108** is shown being pulled through the fitted scalp mesh **112** in natural hair groupings **126** with both a lateral alignment with lateral spacing **126**A, as shown along A-C, and transverse directional spacing **126**B, which can be orthogonal (or from 60° to) 120° with respect to the lateral alignment of the natural hair groupings. In this example, the transverse direction spacing of the natural hair groupings is generally in a ventral to dorsal direction, but can go in any direction that makes sense for a given subject. The example shown appears in the form of a relatively ordered grid or array of hair groupings, but other arrangements can likewise be used. For example, the transverse directional spacing need not be aligned with the location of an adjacent laterally aligned row of natural hair groupings.

[0024] In accordance with the examples herein, the term "laterally" or "lateral spacing" or "laterally aligned" refers to the orientation of spacing in the direction in which rows of natural hair groupings are pulled through the fitted scalp mesh. Rows of natural hair groupings with lateral spacing may be laterally aligned or substantially laterally aligned, e.g., each natural hair group may be up to about 0.5 inch out of alignment with the immediately adjacent laterally spaced natural hair groupings. In some examples, the rows of natural hair with lateral spacing may align (or substantially align) from front to back, and in other examples, the rows may align (or substantially align) with a top closure support of a top closure hair weft to be later installed, providing a direction in which the hair replacement specialist can establish rows that make sense for the full hair replacement process, e.g., from frontal scalp to back of head and/or from top temporal scalp to bottom temporal scalp. The rows of natural hair groupings that are laterally spaced may likewise be customized to follow the natural direction of the subject's natural hair.

[0025] On the other hand, the term "transverse" when referring to locations of natural hair groupings pulled through the fitted scalp mesh may refer to directions from about 60° to 120° relative to the average direction of the lateral spacing referred to above. In more specific examples, the transverse direction of natural hair groupings may be from about 80° to about 100° or even about 90° in a direction relative to the direction of the laterally aligned (or substantially laterally aligned) natural hair groupings having lateral spacing. This arrangement may result in natural hair groupings over at least a portion of the fitted scalp mesh that form a grid, offset grid, or array of hair groupings. This can be consistent over the entire fitted scalp mesh or over portions of the fitted scalp mesh.

[0026] Referring again to FIG. **2**, as shown, the methods described herein can include pulling at least about 60%, at least about 70%, at least about 80%, or at least about 90%, e.g., about 80% to 100%, of the natural hair **108** of the subject through the fitted scalp mesh **112**, leaving a small portion of the natural hair of the subject beneath or extending beyond the interior of the fitted scalp mesh, which can provide a much longer lasting hair installation that may not need to be tightened

as often, e.g., tightening may be delayed to about 3 weeks, 4 weeks, 5 weeks, or even 6 weeks in some circumstances. In further detail, the lateral spacing **126**A may be in alignment with an upper front hairline **104**A of the natural hair of the subject. In other examples, the natural hair groupings **126** may be spaced laterally at from about 0.5 inch to about 2 inches, from about 0.5 inch to about 1.5 inches, or from about 0.5 inch to about 1 inch on average. In the direction transverse to the lateral spacing, the natural hair groupings can include transverse spacing **126**B at about 0.5 inch to about 2 inches, from about 0.5 inch to about 1.5 inches, or from about 0.5 inch to about 1 inch on average. Closer natural hair groupings lead to less strain on already damaged hair and/or hair with lower volume, so these distances can be adjusted within these ranges (or even outside of these ranges) depending on the state of the hair, e.g., length, volume, brittleness, etc. In the example shown, the lateral spacing is near the lower end of the about 0.5 inch to about 2 inches range, and the transverse spacing is near the upper end of the about 0.5 inch to about 2 inches range, e.g., later spacing to transverse spacing ratio from about 1:4 to about 1:1.5. In some examples, these spacings may be reversed so that the lateral spacing is larger than the transverse spacing, e.g., later spacing to transverse spacing ratio from about 4:1 to about 1.5:1. In still other examples, the lateral spacing may be about the same as the transverse spacing, e.g., later spacing to transverse spacing ratio from about 1:1.5 to about 1.5:1 or about 1:1.

[0027] As shown in FIG. **3**, the same subject is shown with hair fasteners **122** shown snugly crimped about the natural hair groupings **126** and against the fitted scalp mesh **112**. In this instance, the hair fasteners shown are microbeads. An example microbead crimper **124** is shown as well, which can be used to clamp the microbeads down about the natural hair groupings against the fitted scalp mesh. In some examples, microbeads can be any size that provides acceptable results, but in some examples, the microbeads can be very small, e.g., from about 0.2 mm to about 4 mm, from about 0.5 mm to about 4 mm, from about 1 mm to about 4 mm, or from about 2 mm to about 3.5 mm in size. In some examples, nanobeads can be used, which are smaller than microbeads. For simplicity, the term "microbeads" shall be used to describe both microbeads and nanobeads.

Installing Top Closure Hair Weft

[0028] Once the fitted mesh cap is installed with the array of hair groupings pulled through and secured using hair fasteners, such as crimped microbeads, a top closure hair weft can be installed over the frontal scalp. FIG. **4** illustrates a first type of top closure hair weft, which is a frontal top closure hair weft **132**A that supports replacement hair **148**. In this example, an underside of the frontal top closure hair weft is shown, which includes the surface that rests on the fitted scalp mesh (not shown, but shown in FIGS. **1**-**3**). In this example, the frontal top closure hair weft has a top closure support **134**, which can include a mesh or lace material **136** bound at multiple edges by a bound top closure edge **138**. For example, the bound top closure edge can include multiple stitched edges or one continuous U-shaped stitched edge, as shown. Furthermore, in this example, the top closure support can include an unbound front **140**, which in some instances, can include excess (lace or mesh) material **144** that can be positioned essentially in alignment with the upper front hairline (not shown, but shown at **104**A in FIGS. **1**-**3**). The excess material can be cut/removed at a location at about the front hairline of the otherwise natural hair of the subject. As a note, it is emphasized that the front of the frontal top closure hair weft may also be bound, similar to that shown about the balance of the frontal top closure hair weft. However, if the front of the frontal top closure hair weft may be cut to align with the front hairline of the subject, the end result will be the same. The term "unbound" refers to the condition of the front of the top closure when complete (after trimming a bound or unbound top closure or a top closure that is unbound and not trimmed). Furthermore, though the top closure itself is referred to as unbound in the front, this does not infer that the front is not stitched to the underlying fitted scalp mesh (not shown in FIG. **4**, but shown in FIGS. **1**-**3** and **6**-**8**), as the unbound top closure can typically be stitched to the fitted scalp mesh near the upper front hairline (not shown, but shown in FIG. **1** at **104**A).

[0029] The frontal top closure hair weft **132**A shown in FIG. **4** can be sized so that the unbound

front **140** is long enough to span at least beyond both apexes of the frontal-temporal recesses (shown at **102**D in FIGS. **1**-**3**) of the subject, e.g., as the frontal scalp begins to curve downward reaching the temporal scalps. In accordance with this, an example dimension of the top closure support **134** can be at least about 4.5 inches, at least about 5 inches, or at least about 5.5 inches along the unbound front, e.g., about 5 inches, about 6 inches, about 6.5 inches, about 7 inches, etc. The depth (from front to back) likewise has similar dimensions, resulting in a square shape or a near-square shape. For example, a 5 inch by 5 inch (5×5 in.) top closure support, a 6 inch by 6 inch (6×6 in.) top closure support, or a 5 inch by 6 inch (5×6 in.) top closure support have been found to be acceptable sizes for most subjects, as 5 or 6 inches along the unbound front tends to be enough to follow the front hairline off of the frontal scalp and onto the temporal scalp. Example top closure hair wefts having a bound top closure edge that is thin and stitched are available and referred to as Hi-Definition (HD) lace top closures.

[0030] FIG. **5** illustrates an alternative type of top closure hair weft, which is a frontal-temporal top closure hair weft **132**B. In this example, an underside of the frontal-temporal top closure hair weft is shown, which includes the surface that rests on the fitted scalp mesh (not shown, but shown in FIGS. **1**-**3**). In this example, the frontal-temporal top closure hair weft includes a top closure support **134** that supports replacement hair **148**. The top closure support can be constructed of a mesh or lace material **136** bound on at least one edge (or even multiple edges) by a bound top closure edge **138**, which can be a stitched edge or other type of bound top closure edge. The bound top closure edge can include a single bound top closure edge, as shown, or can be bound at three edges, e.g., back and two sides, or at all four edges. In this example, there is an unbound front **140** and also two unbound sides **142** that may include excess (mesh or lace) material **144** that can be cut away or otherwise removed to align with the front hairline and also cut to size from side to side at or about the side hairlines (upper front hairline **104**A, lateral front hairlines **104**B, and side hairlines **106**A are shown in FIG. **1**) above the ears of the subject. Thus, the unbound front and the unbound sides (which may alternatively be bound) of the top closure support can be cut to align with the front hairline and the side hairlines (or just above the side hairlines).

[0031] In accordance with examples herein, dimensions of the top closure support **134** of the frontal-temporal top closure **132**B can have a width of at least about 8 inches, at least about 10 inches, at least about 12 inches, or at least about 13 inches, as measured along the unbound front edge (and bound back edge), e.g., from 8-15 inches, from 10-14 inches, or from 12-14 inches. The depth of the top closure support of the frontal-temporal top closure can be from about 2 inches to about 6 inches, from about 3 inches to about 5 inches, or about 4 inches, for example. One size that has been demonstrated effective for use has a depth to width size ratio of about 4×15 inches, which is deep enough to provide good top closure coverage from the front hairline backwards in the ventral to dorsal direction and is wide enough to be an acceptable size for use on essentially any sized head, as it can be cut to size to span from the side hairline of one temporal scalp to another, e.g., starting and ending at or about the top of the subject's ears.

[0032] Referring now to FIG. **6**, the frontal top closure **132**A of FIG. **4** is shown as being inverted so that the top closure support **134** is now facing downward toward the scalp, and is positioned over the frontal scalp **102**A (over the fitted scalp mesh **112**). Furthermore, the unbound front **140** is shown as extending beyond both apexes of the frontal-temporal recesses **102**D of the subject. The top closure hair weft can be clipped in place temporarily if that is helpful in positioning and stitching the top closure support about the bound top closure edge **138**. In some examples, the top closure hair weft can be stitched in place (to the fitted scalp mesh) at two corners of the top closure hair weft that are positioned near the frontal-temporal recesses (shown at **102**D in FIG. **1**) along the upper front hairline (shown at **104**A in FIG. **1**). In this taut condition, the unbound front can be stitched in place. This approach can have an advantage over the use of clips for temporary positioning in that it provides for a tauter unbound front for stitching in place, which can result in a tighter, flatter, and more natural appearance when complete. In some examples, stitching the

unbound front of the top closure can be just behind a thin line of replacement hair that is at the front of the unbound edge of the top closure hair weft. For example, from about 1/32 inch to about ¼ inch or from about 1/16 inch to about ⅛ inch of hair at the front of the unbound edge can be draped downward over the face of the subject, and the unbound edge can be stitched just behind this thin line of replacement hair. Then, when this thin line of replacement hair is pulled backward over the fitted scalp mesh, the stitching can be hidden by the thin line of replacement hair.

[0033] In some examples, the bound perimeter can be stitched to the fitted scalp mesh by partially stitching one side (right or left) to the fitted scalp mesh and then partially stitching the other side (left or right) to the fitted scalp mesh. This allows the top closure hair weft to be installed tightly in the lateral direction (some stretching of the top closure support is acceptable). The balance of the bound perimeter can then be stitched to the fitted scalp mesh, taking care not to pull too much in a backwards direction, as that can misalign the unbound front relative to the front hairline of the subject's natural hair. Any stitching technique can be used, but in some examples, clipping the top closure hair weft in place followed by the use of a basket stitch about the bound perimeter can be effective. The stitching used can loop around the bound perimeter and then pass through the fitted scalp mesh. Furthermore, the stitching can pass through a plurality of the hair tracks **128** secured by hair fasteners **122**, e.g., microbeads, along with the fitted scalp mesh. In addition to stitching the top closure support in place, the unbound front can be cut to essentially match the subject's hairline, or can be used to modify the subject's hairline as may be desirable. The unbound front can then be adhered to the subject's skin using two-sided tape, adhesive, or the like. Alternatively, the unbound front can be stitched to the fitted scalp mesh along the hairline, leaving a thin line of replacement hair in front of the stitching, e.g., about 1/32 inch to about ¼ inch in depth measured from front to back.

[0034] FIG. **7** illustrates the frontal-temporal top closure **132**B of FIG. **5** in an inverted orientation so that the top closure support **134** is now facing downward toward the scalp, and is positioned over the frontal scalp **102**A (over the fitted scalp mesh **112**) and down both temporal scalps **102**C. Furthermore, the unbound front **140** is shown as extending beyond both apexes of the frontal-temporal recesses (shown at **102**D in FIG. **1**) of the subject and in this instance, extending down both sides, terminating just above the ears of the subject. This top closure hair weft can be clipped in place temporarily if that is helpful in positioning and stitching the top closure support along the bound top closure edge **138** (which is along the back in this instance). The top closure hair weft can then be stitched to the fitted scalp mesh. Any stitching technique can be used, but in some examples, clipping the top closure hair weft in place followed by the use of a basket stitch along the bound perimeter can be effective. The stitching used can loop around the bound perimeter and then pass through the fitted scalp mesh. Furthermore, the stitching can pass through a plurality of the hair tracks **128** secured by hair fasteners **122**, e.g., microbeads, along with the fitted scalp mesh. In addition to stitching the top closure support in place, the unbound front and unbound sides **142** can be cut to essentially match the subject's hairline, or can be used to modify the subject's hairline as may be desirable. The unbound front and sides can then be adhered to the subject's skin using two-sided tape, adhesive, or the like. In some examples, the unbound sides can be bound and stitched to the fitted scalp mesh as well. Other details related to installation can be similar to those described with respect to that described in FIGS. **4-6**.

[0035] Though either configuration of the top closure hair weft can be used, e.g., frontal top closure **132**A (FIGS. **4** and **6**) or frontal-temporal top closure **132**B (FIGS. **5** and **7**), it is understood that in both of these examples, the top closure hair wefts include a top closure support **134** that extends beyond both apexes of the frontal-temporal recesses **102**D of the subject, which is longer than the upper front hairline **104**A above the forehead. Furthermore, it is noted that different shapes of the top closure supports can be used other than the two shown in these examples.

[0036] When the top closure hair weft is in place and secured by stitching along the bound perimeter, one or more finishing hair wefts **152**A, **152**B, etc. can be installed at distances from

about 0.5 inch to about 2 inches from the bound top closure edge **138** of the top closure support **134**, as shown by example in FIG. **8**. Note that the hair of the top closure hair weft is not shown in this FIG. to avoid obscuring the details related to the installation of the finishing hair wefts.

Installing Finishing Hair Wefts

[0037] In this particular example, as shown in FIG. **8**, a first finishing hair weft **152**A is shown as being stitched by its bound finishing weft edge **154**A to the fitted scalp mesh **112** at a distance from the top closure support **134** of from about 0.5 inch to about 2 inches, from about 0.5 inch to about 1.5 inches, or from about 0.5 inch to about 1 inch, for example. A second finishing hair weft **152**B is shown as being stitched to the fitted scalp mesh by its bound finishing weft edge **154**B at a distance from the bound finishing weft edge of the first finishing hair weft also at from about 0.5 inch to about 2 inches, from about 0.5 inch to about 1.5 inches, or from about 0.5 inch to about 1 inch. Like the stitching material of the top closure hair wefts, the stitching material used can be a polymeric water-resistant thread, such as a nylon thread, that will not substantially be impacted by contact with water, for example. In some examples, the stitching can include a continuous basket stitch. The bound finishing weft edge of the first and/or second (or more) finishing hair wefts can be very thin, having a thickness up to about 1 mm, up to about 0.9 mm, or up to about 0.8 mm.

[0038] In some examples, the finishing hair weft(s) **152**A, **152**B, etc., can be in the form of a skin flat finishing weft with a bound finishing weft edge including a polymeric material, such as polyurethane or another hypoallergenic polymer. The bound finishing weft edge is used as the support for the replacement hair. Normally, skin flat hair wefts are adhered to the surface of the subject's head and/or natural hair, which can cause damage to the natural hair with improper care and application due to the adhesive along the polymeric bound top closure edge. However, with the present systems and methods, the adhesive is not used. Thus, the skin flat hair wefts can be used that are devoid of adhesive, or if adhesive is present, then the adhesive can be covered or remain covered so that it does not damage the natural hair coming through and secured to the fitted scalp mesh **112** as hair tracks **128** via hair fasteners **122**, e.g., microbeads. Instead, the skin flat hair weft is sewn at its bound finishing weft edge to the fitted scalp mesh, similar to the manner in which the top closure hair weft is stitched **156** to the fitted scalp mesh. In some examples, the thickness of the bound finishing weft edge of the skin flat finishing weft can be, for example, less than about 0.2 mm in thickness, less than about 0.15 mm in thickness, or less than about 0.1 mm in thickness. As a result, the use of skin flat finishing hair wefts is a good option for retaining as much flatness as possible relative to the shape of the subject's head.

[0039] In other examples, the finishing hair weft(s) can be in the form of a hand-tied finishing hair weft(s), which include a bound finishing weft edge that is stitched. The thickness of the bound finishing weft edge of the hand-tied finishing weft(s) can be, for example, less than about 1 mm in thickness, less than about 0.9 mm in thickness, or less than about 0.8 mm in thickness, which is still thin enough to retain much of the flatness of the shape of the subject's head. There are also machine-tied wefts having a bound finishing weft edge that can also be thin, e.g. less than about 1 mm, less than about 0.9 mm, or less than about 0.8 mm in thickness. An example of such a weft is referred to commercially as genius wefts, which can be cut to size without the stitching at the bound finishing weft edge unraveling. Regardless of the type of finishing hair weft(s) used, stitching the finishing weft support to the fitted scalp mesh includes stitching its bound finishing weft edge to the fitted scalp mesh at a location opposite the direction of the replacement hair flow away from the bound finishing weft edge. Stated another way, stitching of the finishing hair weft(s) to the fitted scalp mesh can be carried out "above" the bound finishing weft edge of the finishing hair weft(s), as shown with a basket stitch above the bound finishing weft edge of the second finishing hair weft **152**B.

[0040] With these illustrations in mind, a non-limiting example of an installation procedure can be carried out, as follows:

A. Installing Fitted Scalp Mesh

[0041] 1—A soft and stretchy mesh material sized enough to cover from about 60% to 100% of the natural hair of a subject is cut to size based on the subject's original hairline, and then the front of the mesh material is clipped to the front hairline of the natural hair of the subject (allowing for the mesh material to be inverted over the face of the subject, like a veil). [0042] 2—To establish a good fit over the head, one or more excess portions of the mesh material is folded inward (away from the face, which will be fitted against the natural hair and scalp of the subject when installed) and then stitched to isolate the excess portions from the balance of the mesh material. This is done to establish the shape of the fitted scalp mesh. Once the shape is established, the excess mesh material isolated from the balance of the mesh material is removed or cut away, leaving the fitted mesh cap intact.

B. Pulling Natural Hair Through Fitted Scalp Mesh

[0043] 3—Once the fitted scalp mesh is installed on the subject's head, in this example, from about 60% to 100%, e.g., about 80%, of the natural hair of the subject is pulled through the mesh in discrete hair groupings using a hook. The lateral spacing of the hair groupings per row (starting at the front hairline) are pulled through at about 1 inch apart. The rows of hair groupings (in a direction generally from ventral to dorsal) are spaced at about 1 inch apart as well. [0044] 4—As the hair groupings are pulled through, hair fasteners in the form of microbeads less than 5 mm in size, e.g., 3 mm, are placed about each hair grouping against the fitted scalp mesh and then crimped to hold the hair groupings tightly against the fitted scalp mesh. The microbeads can be applied as each hair grouping has been pulled through, after a few hair groupings are pulled through, after a row of hair groupings are pulled through, or after all of the hair groupings are pulled through.

C. Forming Hair Tracks Along Exterior of Fitted Scalp Mesh

[0045] 5—With the hair groupings securely in place, the hair groupings are then used to form hair tracks along the exterior of the fitted scalp mesh. Individual hair tracks are oriented transverse (orthogonally in this example) relative to the rows of hair groupings with lateral spacing. In forming each track, each hair grouping passes through at least two microbeads, namely the one used to secure it against the fitted scalp mesh and at least one other along its hair track. If the hair is long enough, individual hair groupings can pass through from 3-8 total microbeads along its hair track. Thus, each hair track in this example includes an initial hair grouping (immediately adjacent to the top closure hair weft), and as the hair tracks travel away from the top closure hair weft, additional hair groupings join the track, e.g., every 0.5-2 inches, in a general direction from ventral to dorsal.

D. Installing Top Closure and/or Finishing Hair Wefts [0046] 6—A top closure hair weft with a 5-inch by 5-inch top closure support or a 6-inch by 6 inch top closure support, e.g., a frontal top closure hair weft support, is then clipped or tacked/stitched in place, such as at its front corners along the front hairline so that its unbound edge is essentially aligned with the front hairline of the subject's natural hair. Using the stitching method to tack the corners of the unbound edge in place can be beneficial if the objective is to provide a taut unbound edge for subsequent sewing, for example. A basket stitch is used to secure a first side of a bound top closure edge of the top closure hair weft support to the fitted scalp mesh, followed by using a basket stitch to secure a second (opposite) side of the bound top closure edge to the fitted scalp mesh. The balance of the bound top closure edge is then also stitched similarly to the fitted scalp mesh. The stitching in this example passes through a plurality of hair tracks to provide added security. The unbound front of the top closure support can be removed (cut away) to match the subject's hairline above the forehead and then adhered to the skin and/or stitched to the fitted scalp mesh behind a thin line of some or all of the forward-most replacement hair of the top closure, e.g., from about 1/32 inch to about ¼ inch of the forward-most hair, depending on the subject's hair. This allows the subject to hide the stitching used to secure the top closure to the fitted scalp mesh. This can occur at this point or after installing the finishing hair wefts. [0047] 7—With the top closure hair weft securely in place, a series of finishing hair wefts are installed about every 0.5 inch to about 2 inches in a general direction of

ventral to dorsal (or front to back) from the back of the top dorsal weft support (or in a manner surrounding or radiating outward from the top closure support). When installing the finishing hair wefts, the bound finishing weft edge, e.g., hand-tied or skin flat hair wefts, is stitched to the fitted scalp mesh in a manner similar to that described for stitching the top closure hair weft to the fitted scalp mesh, e.g., basket stitching. In this example, the basket stitching occurs "over" the bound finishing weft edge, or in a direction opposite the direction of the hair flow.

[0048] Notably above, an example of a complete replacement hair installation has been described in some detail, but it is emphasized that each of these example steps are provided for illustration purposes. Some steps may be omitted and others included consistent with the present specification. Thus, the scope of the present invention should be considered to include that described generally throughout the specification as well as that described in the example embodiments below and the appended claim sets provided hereinafter.

EXAMPLE EMBODIMENTS

[0049] In accordance with the disclosure herein, the following examples are illustrative of several embodiments of the present technology.

[0050] 1. A method of installing replacement hair, comprising: [0051] installing a fitted scalp mesh over natural hair of a subject experiencing hair loss or hair thinning, wherein the subject has at least 50% natural hair with a majority of the natural hair being at least 2 inches in length; [0052] pulling from about 80% to 100% of the natural hair beneath the fitted scalp mesh through the fitted scalp mesh to an exterior of the fitted scalp mesh, wherein the natural hair is pulled through as a plurality of natural hair groupings having lateral spacing of about 0.5 inch to about 2 inches on average; [0053] forming a plurality of hair tracks along the exterior of the fitted scalp mesh, wherein individual hair tracks are oriented transverse relative to the lateral spacing and include multiple natural hair groupings having different starting locations along the individual hair tracks, and wherein individual natural hair groupings of the individual hair track pass through and are secured by at least two hair fasteners along the individual hair track; and [0054] installing at least one hair weft on the fitted scalp mesh.

[0055] 2. The method of example 1, comprising pulling from about 90% to 100% of the natural hair beneath the fitted scalp mesh through the fitted scalp mesh to the exterior of the fitted scalp mesh.

[0056] 3. The method of one of examples 1 to 2, wherein the hair fasteners include microbeads having a size no larger than about 4 mm.

[0057] 4. The method of one of examples 1 to 3, wherein the lateral spacing is in alignment with a front hairline of the subject, and wherein hair groupings are also spaced apart in a direction transverse to the lateral spacing at about 1.5 inches or less on average and the hair fasteners are spaced apart in a ventral to dorsal direction.

[0058] 5. The method of one of examples 1 to 4, wherein the plurality of natural hair groupings is spaced apart laterally at from about 0.5 inch to about 1.5 inches on average.

[0059] 6. The method of one of examples 1 to 5, wherein the hair fasteners are spaced apart in a direction transverse to the lateral spacing at about 0.5 inch to about 2 inches on average.

[0060] 7. The method of one of examples 1 to 6, wherein the hair fasteners are spaced apart in a direction transverse to the lateral spacing at about 0.5 inch to about 1.5 inches on average.

[0061] 8. The method of one of examples 1 to 7, wherein installing the fitted scalp mesh includes shaping the fitted scalp mesh from a flexible mesh material by: [0062] gathering a portion of the flexible mesh material to form a fitted shape with excess flexible mesh material positioned at an interior of the fitted shape; [0063] stitching the flexible mesh material with the excess flexible mesh being excluded from the fitted shape; and [0064] removing at least 90% of the excess flexible mesh from the interior of the fitted shape to form the fitted scalp mesh.

[0065] 9. The method of one of examples 1 to 8, wherein installing at least one hair weft includes stitching a top closure hair weft to the fitted scalp mesh at a location over a frontal scalp such that a

perimeter of a top closure support of the top closure hair weft extends laterally beyond both apexes of the frontal-temporal recesses of the subject.

[0066] 10. The method of example 9, wherein the perimeter of the top closure support extends laterally to about each lower hairline of each temporal scalp.

[0067] 11. The method of one of examples 1 to 10, wherein installing at least one hair weft includes: [0068] stitching a top closure support of a top closure hair weft to the fitted scalp mesh at a location over a frontal scalp; and [0069] stitching a finishing weft support of a finishing hair weft to the fitted scalp mesh at a distance from the top closure support from about 0.5 inch to about 2 inches.

[0070] 12. The method of example 11, wherein stitching the finishing weft support to the fitted scalp mesh includes using a polymeric water-resistant thread forming a continuous basket stitch.

[0071] 13. The method of example 11, wherein stitching the finishing weft support to the fitted scalp mesh includes stitching the finishing weft support to the fitted scalp mesh at a location opposite the direction of hair flow from the finishing hair weft.

[0072] 14. The method of example 11, wherein the finishing hair weft includes a polymeric skin flat finishing weft support having a thickness of less than about 0.15 mm.

[0073] 15. The method of example 11, wherein the finishing hair weft includes a hand-tied weft support having a thickness of less than about 1 mm.

[0074] 16. The method of one of examples 1 to 15, wherein the subject is suffering from a hair loss due to a medical condition or medical treatment related to cancer, alopecia, trichotillomania, hormone imbalance, or medication-induced hair loss.

[0075] 17. A method of installing replacement hair, comprising: [0076] installing a fitted scalp mesh over natural hair of a subject experiencing hair loss or hair thinning, wherein the subject has at least 50% natural hair with a majority of the natural hair being at least 2 inches in length; [0077] pulling at least 60% the natural hair beneath the fitted scalp mesh through the fitted scalp mesh to an exterior of the fitted scalp mesh, wherein the natural hair is pulled through as a plurality of natural hair groupings having lateral spacing of about 1 inch or less on average and are also spaced apart in a direction transverse to the lateral spacing at about 1.5 inches or less on average; [0078] forming a plurality of hair tracks along the exterior of the fitted scalp mesh, wherein individual hair tracks are oriented transverse relative to the lateral spacing and include multiple natural hair groupings having different starting locations along the individual hair tracks, and wherein individual natural hair groupings of the individual hair track pass through and are secured by at least two hair fasteners along the individual hair track; and [0079] installing at least one hair weft on the fitted scalp mesh.

[0080] 18. The method of example 17, comprising pulling from about 80% to 100% of the natural hair beneath the fitted scalp mesh through the fitted scalp mesh to the exterior of the fitted scalp mesh.

[0081] 19. The method of one of examples 17 to 18, wherein the hair fasteners include microbeads having a size no larger than about 4 mm.

[0082] 20. The method of one of examples 17 to 19, wherein the plurality of natural hair groupings is spaced apart laterally in alignment with the front hairline, and wherein the hair fasteners are spaced apart in a ventral to dorsal direction.

[0083] 21. The method of one of examples 17 to 20, wherein the plurality of natural hair groupings is spaced apart laterally at from about 0.5 inch to about 1 inch on average, and wherein the hair fasteners are spaced apart in a direction transverse to the lateral spacing at about 0.5 inch to about 1 inch on average.

[0084] 22. The method of one of examples 17 to 21, comprising pulling from about 90% to 100% of the natural hair beneath the fitted scalp mesh through the fitted scalp mesh to the exterior of the fitted scalp mesh.

[0085] 23. The method of one of examples 17 to 22, wherein installing the fitted scalp mesh

includes shaping the fitted scalp mesh from a flexible mesh material by: [0086] gathering a portion of the flexible mesh material to form a fitted shape with excess flexible mesh material positioned at an interior of the fitted shape; [0087] stitching the flexible mesh material with the excess flexible mesh being excluded from the fitted shape; and [0088] removing at least 90% of the excess flexible mesh from the interior of the fitted shape to form the fitted scalp mesh.

[0089] 24. The method of one of examples 17 to 23, wherein installing at least one hair weft includes stitching a top closure hair weft to the fitted scalp mesh at a location over a frontal scalp such that a perimeter of a top closure support of the top closure hair weft extends laterally beyond apexes of the frontal-temporal recesses of the subject.

[0090] 25. The method of example 24, wherein the perimeter of the top closure support extends laterally to about each lower hairline of each temporal scalp.

[0091] 26. The method of one of examples 17 to 25, wherein installing at least one hair weft includes: [0092] stitching a top closure support of a top closure hair weft to the fitted scalp mesh at a location over a frontal scalp; and [0093] stitching a finishing weft support of a finishing hair weft to the fitted scalp mesh at a distance from the top closure support from about 0.5 inch to about 2 inches.

[0094] 27. The method of example 26, wherein stitching the finishing weft support to the fitted scalp mesh includes using a polymeric water-resistant thread forming a continuous basket stitch.

[0095] 28. The method of example 26, wherein stitching the finishing weft support to the fitted scalp mesh includes stitching the finishing weft support to the fitted scalp mesh at a location opposite the direction of hair flow from the finishing hair weft.

[0096] 29. The method of example 25, wherein the finishing hair weft includes a polymeric skin flat finishing weft support having a thickness of less than about 0.15 mm.

[0097] 30. The method of example 26, wherein the finishing hair weft includes a hand-tied weft support having a thickness of less than about 1 mm.

[0098] 31. The method of one of examples 17 to 30, wherein the subject is suffering from a hair loss due to a medical condition or medical treatment related to cancer, alopecia, trichotillomania, hormone imbalance, or medication-induced hair loss.

[0099] 32. A method of installing replacement hair, comprising: [0100] installing a fitted scalp mesh over natural hair of a subject experiencing hair loss or hair thinning, wherein the subject has at least 50% natural hair with a majority of the natural hair being at least 2 inches in length; [0101] pulling at least about 60% of the natural hair beneath the fitted scalp mesh through the fitted scalp mesh to an exterior of the fitted scalp mesh, wherein the natural hair is pulled through as a plurality of natural hair groupings spaced apart laterally at from about 0.5 inch to about 2 inches on average; [0102] forming a plurality of hair tracks along the exterior of the fitted scalp mesh, wherein individual hair tracks are oriented transverse relative to the lateral spacing and include multiple natural hair groupings having different starting locations along the individual hair tracks, and wherein individual natural hair groupings of the individual hair track pass through and are secured by at least two hair fasteners along the individual hair track; [0103] stitching a top closure hair weft to the fitted scalp mesh at a location over a frontal scalp such that a perimeter of a top closure support of the top closure hair weft extends laterally beyond both apexes of the frontal-temporal recesses of the subject along the front hairline; and [0104] stitching a finishing weft support of a finishing hair weft to the fitted scalp mesh, wherein the finishing weft support has a thickness of less than about 1 mm.

[0105] 33. The method of example 32, wherein the finishing weft support is a polymeric skin flat finishing weft support having a thickness of less than about 0.15 mm.

[0106] 34. The method of one of examples 32 to 33, wherein the finishing weft support is a hand-tied finishing weft support having a thickness from about 0.3 inch to about 0.8 inch and a height of about 0.5 inch to about 1.25 mm.

[0107] 35. The method of one of examples 32 to 34, wherein stitching a top closure hair weft to the

fitted scalp mesh includes clipping or stitching the top closure hair weft in place at least at two corners or ends of the top closure hair weft positioned along the front hairline.

[0108] 36. The method of example 35, wherein stitching the top closure hair weft in place is carried out so that the top closure hair weft is taut along the front hairline between the two corners or ends of the top closure.

[0109] 37. The method of one of examples 32 to 36, further comprising: [0110] stitching the top closure support from one lateral side to the fitted scalp mesh; [0111] stitching the top closure support from the opposite lateral side to the fitted scalp mesh to establish a tight and slightly stretched fit over the frontal scalp and underlying natural hair; and [0112] stitching the balance of the top closure support to the fitted scalp mesh, excluding at the front hairline.

[0113] 38. The method of one of examples 32 to 37, wherein at the front hairline, excess material from the fitted scalp mesh and the top closure support is removed.

[0114] 39. The method of one of examples 32 to 38, wherein the top closure support including replacement hair thereon is stitched to the fitted scalp mesh along the front hairline behind a thin line of replacement hair from about 1/32 inch to about ¼ inch in depth measured from a front edge of the top closure toward a back edge of the top closure.

[0115] 40. The method of one of examples 32 to 39, wherein the top closure support including replacement hair thereon is adhered to the skin surface at or above the forehead.

[0116] 41. The method of one of examples 32 to 40, wherein installing at least one hair weft includes stitching a top closure hair weft to the fitted scalp mesh at a location over a frontal scalp such that a perimeter of a top closure support of the top closure hair weft extends laterally beyond both apexes of the frontal-temporal recesses of the subject.

[0117] 42. The method of one of examples 32 to 41, comprising pulling from about 80% to 100% of the natural hair beneath the fitted scalp mesh through the fitted scalp mesh to the exterior of the fitted scalp mesh.

[0118] 43. The method of one of examples 32 to 42, wherein the hair fasteners include microbeads having a size no larger than about 4 mm.

[0119] 44. The method of one of examples 32 to 43, wherein the plurality of natural hair groupings is spaced apart laterally in alignment with the front hairline, and wherein the hair fasteners are spaced apart in a ventral to dorsal direction.

[0120] 45. The method of one of examples 32 to 44, wherein the plurality of natural hair groupings is spaced apart laterally at from about 0.5 inch to about 1 inch on average, and wherein the hair fasteners are spaced apart in a direction transverse to the lateral spacing at about 0.5 inch to about 1 inch on average.

[0121] 46. The method of one of examples 32 to 45, wherein the subject is suffering from a hair loss due to a medical condition or medical treatment related to cancer, alopecia, trichotillomania, hormone imbalance, or medication-induced hair loss.

[0122] 47. A method of installing replacement hair, comprising: [0123] installing a fitted scalp mesh over natural hair of a subject experiencing hair loss or hair thinning, wherein the subject has at least 50% natural hair with a majority of the natural hair being at least 2 inches in length; [0124] pulling from about 80% to 100% of the natural hair beneath the fitted scalp mesh through the fitted scalp mesh to an exterior of the fitted scalp mesh, wherein the natural hair is pulled through as a plurality of natural hair groupings spaced apart laterally at from about 1 inch or less on average and also spaced apart in a direction transverse to the lateral spacing at about 1.5 inches or less on average; [0125] forming a plurality of hair tracks along the exterior of the fitted scalp mesh, wherein individual hair tracks are oriented transverse relative to the lateral spacing and include multiple natural hair groupings having different starting locations along the individual hair tracks, and wherein individual natural hair groupings of the individual hair track pass through and are secured by at least two hair fasteners along the individual hair track; [0126] stitching a top closure hair weft to the fitted scalp mesh at a location over a frontal scalp such that a perimeter of a top

closure support of the top closure hair weft extends laterally beyond both apexes of the frontal-temporal recesses of the subject; and [0127] stitching a finishing weft support of a finishing hair weft to the fitted scalp mesh, wherein the finishing weft support has a thickness of less than about 1 mm.

[0128] 48. The method of example 47, wherein installing the fitted scalp mesh includes shaping the fitted scalp mesh from a flexible mesh material by: [0129] gathering a portion of the flexible mesh material to form a fitted shape with excess flexible mesh material positioned at an interior of the fitted shape; [0130] stitching the flexible mesh material with the excess flexible mesh being excluded from the fitted shape; and [0131] removing at least 90% of the excess flexible mesh from the interior of the fitted shape to form the fitted scalp mesh.

[0132] 49. The method of one of examples 47 to 48, wherein stitching a top closure hair weft to the fitted scalp mesh includes: [0133] clipping or stitching the top closure hair weft in place at least at two corners or ends of the top closure hair weft positioned along the front hairline; [0134] stitching the top closure support from one lateral side to the fitted scalp mesh; [0135] stitching the top closure support from the opposite lateral side to the fitted scalp mesh to establish a tight and slightly stretched fit over the frontal scalp and underlying natural hair; and [0136] stitching the balance of the top closure support to the fitted scalp mesh, excluding at the front hairline.

[0137] 50. The method of one of examples 47 to 49, wherein stitching the finishing weft support to the fitted scalp mesh includes using a polymeric water-resistant thread forming a continuous basket stitch, and stitching the finishing weft support to the fitted scalp mesh at a location opposite the direction of hair flow from the finishing hair weft.

[0138] 51. The method of one of examples 47 to 50, wherein the subject is suffering from a hair loss due to a medical condition or medical treatment related to cancer, alopecia, trichotillomania, hormone imbalance, or medication-induced hair loss.

[0139] 52. A system for installing replacement hair, comprising: [0140] a fitted scalp mesh or a scalp mesh material adaptable to form a fitted scalp mesh sufficient to cover at least a majority of the natural hair of a subject, wherein the fitted scalp mesh has openings sufficient to pull through about 80% to 100% of the natural hair from beneath the fitted scalp mesh to an exterior of the fitted scalp mesh in natural hair groupings spaced apart laterally at from about 0.5 inch to about 2 inches on average and also spaced apart in a direction transverse to the lateral spacing at about 0.5 inch to about 2 inches; [0141] a top closure hair weft having a size sufficient to laterally cover a front hairline of a subject at the frontal scalp and which extends laterally beyond both apexes of the frontal-temporal recesses of the subject; and [0142] a plurality of finishing hair wefts adapted to extend outward from the top closure hair weft along the fitted scalp mesh.

[0143] 53. The system of example 52, further comprising a plurality of microbeads having a size of less than about 4 mm.

[0144] 54. The system of one of examples 52 to 53, wherein the top closure hair weft extends down each temporal scalp covering substantially a front hairline of the subject from ear to ear.

[0145] 55. The system of one of examples 52 to 54, wherein the finishing hair weft includes a polymeric skin flat finishing weft support having a thickness of less than about 0.15 mm.

[0146] 56. The system of example 55, wherein the polymeric skin flat finish weft support is devoid of adhesive.

[0147] 57. The system of one of examples 52 to 56, wherein the finishing hair weft includes a hand-tied weft support having a thickness of less than about 1 mm.

Definitions

[0148] In describing embodiments of the present disclosure, the following terminology will be used. Unless defined otherwise, all technical and scientific terms, terms of art, and acronyms used herein have the meanings commonly understood by one of ordinary skill in the art in the field(s) of the invention, or in the field(s) where the term is used. Although any compositions, methods, articles of manufacture, or other means or materials similar or equivalent to those described herein

can be used in the practice of the present invention, certain compositions, methods, articles of manufacture, or other means or materials are described herein.

[0149] The singular forms "a," "an" and "the" include plural referents unless the context clearly dictates otherwise. Thus, for example, reference to "a hair weft" refers to one or more hair wefts.

[0150] As used herein, "comprising" or "including" language or other open-ended language can be substituted with "consisting essentially of" and "consisting of" as if such transition phrase is expressly included in such embodiments.

[0151] Reference to "an example" or "an embodiment" means that a particular feature, structure, or characteristic described in connection with the example is included in at least one embodiment of the present disclosure. Thus, appearances of the phrases "in an example" or "in an embodiment" in various places throughout this specification are not necessarily all referring to the same embodiment.

[0152] As used herein, a plurality of items, structural elements, compositional elements, and/or materials may be presented in a common list for convenience. However, these lists should be construed as though each member of the list is individually identified as a separate and unique member. Thus, no individual member of such list should be construed as a de facto equivalent of any other member of the same list solely based on their presentation in a common group without indications to the contrary. In addition, various embodiments and examples of the present invention may be referred to herein along with alternatives for the various components thereof. It is understood that such embodiments, examples, and alternatives are not to be construed as de facto equivalents of one another, but are to be considered as separate and autonomous representations of the present invention.

[0153] Furthermore, the described features, structures, or characteristics may be combined in any suitable manner in one or more embodiments. In the description herein, numerous specific details are included to provide a thorough understanding of embodiments of the disclosure. One skilled in the relevant art will recognize, however, that the teachings of the present disclosure can be practiced without one or more of the specific details, or with other methods, components, layouts, etc. In other instances, well-known structures, materials, or operations are not shown or described in detail to avoid obscuring aspects of the invention.

[0154] While the forgoing examples are illustrative of the principles of the present disclosure in one or more particular applications, it will be apparent to those of ordinary skill in the art that numerous modifications in form, usage and details of implementation can be made without the exercise of inventive faculty, and without departing from the principles and concepts of the disclosure. Accordingly, it is not intended that the invention be limited, except as by the claims set forth below.

Claims

1. A method of installing replacement hair, comprising: installing a fitted scalp mesh over natural hair of a subject experiencing hair loss or hair thinning, wherein the subject has at least 50% natural hair with a majority of the natural hair being at least 2 inches in length; pulling at least about 60% of the natural hair beneath the fitted scalp mesh through the fitted scalp mesh to an exterior of the fitted scalp mesh, wherein the natural hair is pulled through as a plurality of natural hair groupings having lateral spacing of about 0.5 inch to about 2 inches on average; forming a plurality of hair tracks along the exterior of the fitted scalp mesh, wherein individual hair tracks are oriented transverse relative to the lateral spacing and include multiple natural hair groupings having different starting locations along the individual hair tracks, and wherein individual natural hair groupings of the individual hair track pass through and are secured by at least two hair fasteners along the individual hair track; and installing at least one hair weft on the fitted scalp mesh.

2. The method of claim 1, comprising pulling from about 80% to 100% of the natural hair beneath

the fitted scalp mesh through the fitted scalp mesh to the exterior of the fitted scalp mesh.

3. The method of claim 1, wherein the hair fasteners include microbeads having a size no larger than about 4 mm.

4. The method of claim 1, wherein the lateral spacing is in alignment with a front hairline of the subject, and wherein hair groupings are also spaced apart in a direction transverse to the lateral spacing at about 1.5 inches or less on average and the hair fasteners are spaced apart in a ventral to dorsal direction.

5. The method of claim 1, wherein the plurality of natural hair groupings is spaced apart laterally at from about 0.5 inch to about 1.5 inches on average.

6. The method of claim 1, wherein the hair fasteners are spaced apart in a direction transverse to the lateral spacing at about 0.5 inch to about 2 inches on average.

7. (canceled)

8. The method of claim 1, wherein installing the fitted scalp mesh includes shaping the fitted scalp mesh from a flexible mesh material by: gathering a portion of the flexible mesh material to form a fitted shape with excess flexible mesh material positioned at an interior of the fitted shape; stitching the flexible mesh material with the excess flexible mesh being excluded from the fitted shape; and removing at least 90% of the excess flexible mesh from the interior of the fitted shape to form the fitted scalp mesh.

9. The method of claim 1, wherein installing at least one hair weft includes stitching a top closure hair weft to the fitted scalp mesh at a location over a frontal scalp such that a perimeter of a top closure support of the top closure hair weft extends laterally beyond both apexes of the frontal-temporal recesses of the subject.

10. The method of claim 9, wherein the perimeter of the top closure support extends laterally to about each lower hairline of each temporal scalp.

11. The method of claim 1, wherein installing at least one hair weft includes: stitching a top closure support of a top closure hair weft to the fitted scalp mesh at a location over a frontal scalp; and stitching a finishing weft support of a finishing hair weft to the fitted scalp mesh at a distance from the top closure support from about 0.5 inch to about 2 inches.

12. The method of claim 11, wherein stitching the finishing weft support to the fitted scalp mesh includes using a polymeric water-resistant thread forming a continuous basket stitch.

13. The method of claim 11, wherein stitching the finishing weft support to the fitted scalp mesh includes stitching the finishing weft support to the fitted scalp mesh at a location opposite the direction of hair flow from the finishing hair weft.

14. The method of claim 11, wherein the finishing hair weft includes a polymeric skin flat finishing weft support having a thickness of less than about 0.15 mm.

15. The method of claim 11, wherein the finishing hair weft includes a hand-tied weft support having a thickness of less than about 1 mm.

16. The method of claim 1, wherein the subject is suffering from a hair loss due to a medical condition or medical treatment related to cancer, alopecia, trichotillomania, hormone imbalance, or medication-induced hair loss.

17-51. (canceled)

52. A system for installing replacement hair, comprising: a fitted scalp mesh or a scalp mesh material adaptable to form a fitted scalp mesh sufficient to cover at least a majority of the natural hair of a subject, wherein the fitted scalp mesh has openings sufficient to pull through about 80% to 100% of the natural hair from beneath the fitted scalp mesh to an exterior of the fitted scalp mesh in natural hair groupings spaced apart laterally at from about 0.5 inch to about 2 inches on average and also spaced apart in a direction transverse to the lateral spacing at about 0.5 inch to about 2 inches; a top closure hair weft having a size sufficient to laterally cover a front hairline of a subject at the frontal scalp and which extends laterally beyond both apexes of the frontal-temporal recesses of the subject; and a plurality of finishing hair wefts adapted to extend outward from the top

closure hair weft along the fitted scalp mesh.

53. The system of claim 52, further comprising a plurality of microbeads having a size of less than about 4 mm.

54. The system of claim 52, wherein the top closure hair weft extends down each temporal scalp covering substantially a front hairline of the subject from ear to ear.

55. The system of claim 52, wherein the finishing hair weft includes a polymeric skin flat finishing weft support having a thickness of less than about 0.15 mm, and wherein the polymeric skin flat finish weft support is devoid of adhesive.

56. (canceled)

57. The system of claim 52, wherein the finishing hair weft includes a hand-tied weft support having a thickness of less than about 1 mm.