Cigna Medical Coverage Policy

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Coverage Policy Number **0328**

Subject **Scar Revision**

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Botulinum Therapy
Breast Reconstruction Following Mastectomy or Lumpectomy

INSTRUCTIONS FOR USE
*The following Coverage Policy applies to health benefit plans administered by Cigna companies. Coverage Policies are intended to provide guidance in interpreting certain **standard** Cigna benefit plans. Please note, the terms of a customer's particular benefit plan document [Group Service Agreement, Evidence of Coverage, Certificate of Coverage, Summary Plan Description (SPD) or similar plan document] may differ significantly from the standard benefit plans upon which these Coverage Policies are based. For example, a customer's benefit plan document may contain a specific exclusion related to a topic addressed in a Coverage Policy. In the event of a conflict, a customer's benefit plan document **always supersedes** the information in the Coverage Policies. In the absence of a controlling federal or state coverage mandate, benefits are ultimately determined by the terms of the applicable benefit plan document. Coverage determinations in each specific instance require consideration of 1) the terms of the applicable benefit plan document in effect on the date of service; 2) any applicable laws/regulations; 3) any relevant collateral source materials including Coverage Policies and; 4) the specific facts of the particular situation. Coverage Policies relate exclusively to the administration of health benefit plans. Coverage Policies are not recommendations for treatment and should never be used as treatment guidelines. In certain markets, delegated vendor guidelines may be used to support medical necessity and other coverage determinations. Proprietary information of Cigna. Copyright ©2014 Cigna*

Coverage Policy

Coverage for scar revision is dependent upon benefit plan language, may be subject to the provisions of a cosmetic and/or reconstructive surgery benefit and may be governed by state or federal mandates. Under many benefit plans, scar revision is not covered when performed solely for the purpose of improving or altering appearance or self-esteem, or to treat psychological symptomatology or psychosocial complaints related to one's appearance.

Under many benefit plans formerly administered by Great-West Healthcare reconstructive services and surgery are covered when the reconstruction services are being performed for one of the following primary purposes: 1) to restore large skin defects due to a port wine stain; 2) to relieve severe physical pain caused by an abnormal body structure; 3) reconstruction following a mastectomy; or 4) to treat a functional impairment caused by an abnormal body structure or restore an individual's normal appearance, regardless of whether a functional impairment exists when the abnormality results from a documented illness that occurred within the preceding 12 months.

Please refer to the applicable benefit plan document to determine benefit availability and the terms, conditions and limitations of coverage.

Revision of scar tissue performed as part of reconstructive surgical revision of a breast on which a mastectomy/lumpectomy was performed is covered. Please refer to the Coverage Policy, Breast Reconstruction Following Mastectomy or Lumpectomy, for specific coverage criteria.

If coverage for scar revision is available, the following conditions of coverage apply.

Cigna covers scar revision as medically necessary when BOTH of the following criteria are met:

- the scar in question is causing a functional impairment (e.g., restricted movement), and/or is symptomatic (e.g., painful, ulcerated, inflamed, pruritic, prone to infections)
- ANY of the following modalities is being utilized as monotherapy or combination therapy:
  - compression/pressure therapy
  - intralesional corticosteroid injections
  - laser therapy
  - radiation
  - silicone gel sheeting
  - surgery (e.g., excision, skin grafting/flap surgery)
  - intralesional 5-fluorouracil

Cigna does not cover ANY other injectable medication, including the following, for treatment of scar revision, because each is considered experimental, investigational or unproven for this use:

- bleomycin injections
- interferon therapy
- verapamil hydrochloride
- etanercept (Enbrel®)
- onabotulinum Toxin Type A (Botox® A)

Cigna does not cover ANY of the following because each is considered cosmetic and not medically necessary:

- scar revision in the absence of a functional impairment and/or symptoms
- scar revision when performed solely to improve physical appearance
- any of the following modalities of treatment for scar revision (this list may not be all-inclusive):
  - chemical peels
  - collagen injections and fat transfers
  - cryosurgery
  - dermabrasion
  - punch grafts

General Background

Scars may be considered a natural part of the healing process associated with cutaneous injuries often having decreased tensile strengths and permanent textural irregularities as a result of disturbed collagen production. Factors affecting scar formation include but are not limited to age and the location of injury (American Academy of Dermatology [AAD], 2004). In addition, scar tissue may result from excessive wound tension, improper surgical repair, delayed re-epithelialization, radiation to the affected area (Lupton and Alster, 2002) or therapeutic procedures. Specific body locations, such as anterior chest, shoulders and scapula, and darker-skinned persons are prone to scarring. Scars are often asymptomatic and do not result in a functional impairment, as a result they do not require any intervention. Treatment of scars performed under these circumstances is considered cosmetic in nature and not medically necessary.

Hypertrophic scars remain within the borders of the original incision or area of trauma. They appear as raised, red and nodular areas of tissue, occurring more commonly in areas subject to increased tension or movement or in areas with slow wound healing. The hypertrophic scar may be associated with itching and dysesthesias. Most hypertrophic scars spontaneously involute.

Keloids are similar to hypertrophic scars; however, they are bulkier and extend beyond the borders of the original site of injury. They appear as nodules that can be painful, itchy and disfiguring. Keloids are most often found on the earlobe, the shoulder and over the anterior chest and upper back area. Keloid formation may result in pain, pruritus, hyperpigmentation and disfigurement (Porter, 2002). In some cases, keloids may become infected or ulcerate, and, in severe cases, the bulk of the tumor or the contraction of the scar may restrict movement (Shaffer, et al., 2002).

Contractures are the most severe form of a scar and usually occur as a result of the loss of a large area of skin. This type of scar is commonly found in patients who have experienced burn injuries. Contractures form when the full-thickness edges of skin overlying a joint pull together, affecting the underlying tissues, resulting in constriction of normal movement. Correcting contractures involves excising the scar and replacing it with additional tissue (i.e., graft or flap) or redirecting the tension lines with techniques such as W-plasty or Z-plasty.

Other classifications of scars include striae distensae (i.e., stretch marks), atrophic scars that result from an acute inflammatory reaction such as acne, and pigmented scars that result from excessive pigment deposition following injury. Treatment of these types of scars is generally aimed at improving physical appearance and is considered a cosmetic therapy since they typically do not result in functional impairment.

Established Therapies

Depending on the severity of the scar, revision may aid in the restoration of function, as well as improvement of physical appearance. Several techniques have been employed to minimize scar tissue with proven success, although an optimal treatment method has not been established. In most cases, combination therapies seem to provide fewer recurrences, particularly for the treatment of keloids. Standard methods that are effective for the revision of scar tissue include silicone gel sheeting; compression therapy; radiation; surgical excision; dermabrasion; laser resurfacing with pulsed-dye laser; collagen injections and fat transfers; punch grafts and punch excision; chemical peels; cortisone injections; and cryosurgery (American Society of Plastic Surgeons [ASPS], 2005; AAD, 2004; Mustoe, et al., 2002). Silicone gel sheeting, also known as hydrocolloid dressing, has been effective in reducing scar thickness and pain, although reported outcomes vary. Compression therapy is utilized to flatten scars. Radiation used as monotherapy or combined with surgery is also efficacious for treating hypertrophic scars and keloids. Surgical excision removes the bulk of the scar and has the potential to improve the appearance with a thinner scar. When employed as a sole treatment for keloids, it has been associated with a high rate of recurrence; when employed with intralesional steroids, the recurrence rate appears to be lower than with surgery alone. Dermabrasion removes the upper layer of skin (i.e., superficial skin ablation) and is typically recommended for minor scarring; it is utilized to smooth out surface contours, to improve matching texture and to soften the appearance. Other treatments, such as collagen injections and fat transfers, have been used to elevate indented scar tissue. Punch grafts may be used to provide a smoother skin surface for deep or pitted scars. Chemical peels involve the use of a chemical to remove the top layer of skin in order to improve appearance of superficial scars. Cortisone injections have been employed to reduce itching and improve pain associated with scar tissue. Cryosurgery involves freezing the upper layer of skin resulting in decreased size of scar formation. More involved surgical revision may include skin grafting and flap surgery. While their cosmetic results may be less than optimal, grafts and flaps may greatly improve the function of scarred areas.

Laser therapy has become a widely utilized treatment for scar revision. High-energy light is used to remove the damaged skin. Several lasers are available to treat scar tissue, including the pulsed-dye laser, the carbon dioxide laser and the neodymium: yttrium-aluminum-garnet (Nd:YAG) laser. Authors report lasers such as the continuous-wave argon, Nd: YAG and carbon dioxide laser, when used for revision of scars, have resulted in a high incidence of recurrent scarring, dyspigmentation and pain (Shaffer, et al., 2002; Mustoe, et al., 2002). Currently, these lasers are not widely used for the treatment of scars.

The current laser of choice for treating a hypertrophic and/or keloid scar, the vascular-specific pulsed-dye laser (Alster, 2007), has been recognized as a first-line treatment option (Atiyeh, 2007). Research studies confirm that the pulsed-dye laser has been effective primarily in reducing erythematous color and, in some cases, in flattening and decreasing the bulk of scar tissue with minimal adverse effects (Atiyeh, 2007; Chen and Davidson, 2005; Berman, et al., 2005; Kono, et al., 2003; Alster, et al., 1995). Authors have also reported improvement in pliability and decreased symptoms with pulsed-dye laser therapy (Atiyeh, 2007; Alster, 2003; Dierickx, et al., 1995; Alster, 1994), in addition to improved healing of keloid scars when laser treatment is provided in combination with steroid therapy (Connell and Harland, 2000). The pulsed-dye laser works through absorption by oxyhemoglobin, causing a direct effect on the blood vessels and an indirect effect on the surrounding tissue. Pulsed-dye laser treatments for hypertrophic scars result in significant improvement after 1–2 laser treatments. Some authors report a greater treatment response when using multiple sessions employing lower energy densities. Keloids or thicker hypertrophic scars may require additional treatments.

Intralesional 5-flourouracil is also an accepted method of treatment for hypertrophic and keloid scars. Intralesional 5-flourouracil has been investigated, as both monotherapy and adjuvant therapy, although there is

a paucity of evidence evaluating 5-FU as monotherapy. Evidence in the medical literature is limited, some authors have reported improved clinical outcomes with the use of 5-FU while others have not. Authors contend 5-FU inhibits DNA synthesis and inhibits fibroblast proliferation inducing regression of keloids and hypertrophic scars. Kontochristopoulos et al. (2005) reported the results of a clinical trial involving 20 patients with keloid scars who were treated weekly with intralesional 5-FU. The authors acknowledged that administration of 5-FU did result in clinical improvement (i.e., reduction of keloid volume); however the recurrence rate at one-year was 47%. Darougheh et al. (2008) conducted a double-blind clinical trial (n=40 patients) comparing intralesional triamcinolone combined with 5-FU to intralesional triamcinolone alone for the treatment of keloids. The combination of triamcinolone with 5-FU was more effective and provided a more rapid response (i.e., length, width, and height reduction; decrease in erythema; softening) with fewer side effects when compared to intralesional triamcinolone. Pruritus scores decreased in both treatment groups. Asilian et al. (2006) published results of a single-blinded clinical trial involving 69 patients who received intralesional triamcinolone (TAC), TAC plus 5-FU, or TAC, 5-FU and pulsed dye laser treatment for keloid scars. At 12 weeks follow-up all groups demonstrated acceptable improvement (i.e., erythema, pruritus, pliability, height, length and width). In comparison between groups, statistically significant differences were noted in the TAC plus 5-FU group and TAC plus 5-FU and pulsed due laser group ($p<.05$ for both). The combination of TAC plus 5-FU and pulsed dye laser was reported as the best approach for treatment. In 2004 Nanda and Reddy noted, in a prospective randomized uncontrolled trial that the efficacy of 5-FU was comparable to other modalities as a treatment option for keloid scars. At 24 weeks follow-up, there was no recurrence of symptoms or lesions in 28 patients who received intralesional 5-FU. In 2002 Manuskiatti and Fitzpatrick conducted a prospective, paired comparison, randomized trial (n=10) evaluating intralesional corticosteroid therapy alone or combined with 5-FU, 5-FU alone, and pulsed dye laser for treatment of keloid and hypertrophic scars. Five scar segments were randomly treated with four different regimens. Outcome measures were assessed every eight weeks after treatment regimens (i.e., 32 week study period). Statistically significant clinical improvement was noted in all treated segments. Intralesional formulas resulted in more rapid resolution than pulsed dye laser. In the authors' opinion, 5-FU was comparable to other therapies. Additionally, Fitzpatrick (1999) reported successful outcomes (e.g., decreased pain, itching, softening of the scar, flattening) with intralesional 5-FU administered as a monotherapy, as well as combined with intralesional steroids, for treatment of hypertrophic scars and keloids. Intralesional 5-FU is associated with pain, although authors suggest the pain can be alleviated by the addition of triamcinolone acetonide or a field block anesthesia (Mutalik, 2005). This therapy has also been associated with ulceration at the injection site (Gupta and Kalra, 2002; Apikian and Goodman, 2004; Nanda and Reddy, 2004; Kontochristopoulos, 2005). Evidence in the medical literature evaluating 5 FU as a treatment for scar tissue is limited, however it is considered an accepted method of treating hypertrophic scars and keloids, particularly when combined with intralesional steroids.

Emerging Therapies

Evidence in the published scientific literature (Tziotzios, et al.,2012; Atiyeh, 2007; Berman, 2007; Levanthal, et al. 2006; Al-Attar, et al., 2006; Chen and Davidson, 2005; Berman, et al., 2004; Mustoe, et al., 2002) suggests that the use of pharmacologic agents have potential benefit in the treatment of scar formation, with varying degrees of successful outcomes. Authors have reported there is some evidence of efficacy for scar treatment with intralesional injections of interferon, bleomycin, and verapamil hydrochloride, although studies are limited. Other emerging topical therapies are being investigated such as mitomcyin C, 5% imiquimod cream and retinoic acid, to name a few. Cytokines and/or agents that inhibit the effects of growth factors are also currently being investigated. These and other therapies have been used as either monotherapy or combined therapy although the optimal dosing, duration and frequency of treatment has yet to be established. Some are considered off-label prescription drug use (e.g., interferon, bleomycin and verapamil). At this time, the evidence to support use of these emerging modalities is insufficient and does not allow strong conclusions regarding safety and efficacy. Clinical studies are few, generally involve small patient populations, lack controls, combine various types of therapies, and primarily evaluate short-term outcomes. Further large-scale prospective studies evaluating long-term outcomes, particularly for recurrence, are required before these treatments can be considered standard therapy.

Interferon: Systemic interferon has been shown to increase collagen breakdown producing an antifibrotic effect, and authors have utilized intralesional interferon to improve cosmetic appearance of scars. However, aside from the antiproliferative properties, interferon has been associated with considerable side effects (e.g., flu-like symptoms, fever, headache, and myalgia). Clinical efficacy of intralesional interferon for treatment of scar tissue has not been consistently demonstrated in clinical trials. Davison et al. (2006) reported the results of a prospective trial evaluating intralesional interferon alpha-2b as post-excision therapy (n=13) and noted that the

trial protocol was terminated at midtrial due to a high recurrence rate (54%); the control group (n=26) who received triamcinolone had a 15% recurrence rate. Smith et al. (2007) published a literature review regarding off-label uses of the interferons (gamma and alpha-2b) and reported that intralesional interferon gamma may be beneficial for the treatment of keloids and hypertrophic scars, however the number of patients studied is small, and interferon alpha-2b intralesionally appears less effective based on the evidence reviewed. In contrast, Lee et al. (2008) reported that intralesional interferon alpha-2b was safe and effective for the treatment of keloids. The authors compared outcomes of 20 lesions treated with a combination of triamcinolone injection and interferon alpha-2b to twenty control lesions that received only triamcinolone injection. Both groups were treated with triamcinolone every two weeks for 24 weeks; the combined group also received intralesional interferon alpha-2b injection twice a week for 24 weeks. Lesion depth and volume changes were noted for both groups although statistically significant decreases were observed in the combined group. Additional research is warranted to assess the clinical utility and overall benefit of using interferon for the treatment of scars (Shridharani, et al., 2010; Atiyeh, 2007; Al-Attar, et al., 2005; Mustoe, et al., 2002; Shaffer, et al., 2002).

Bleomycin: Bleomycin has been reported to inhibit proliferation of scar tissue. Evidence in the medical literature evaluating this use is limited to a few published trials evaluating use primarily as an alternative treatment when other modalities have failed. While some evidence supports effectiveness for bleomycin by intradermal injection or the multipuncture method for reducing scar tissue and other symptoms, such as erythema, pruritus and pain (Saray and Gulec, 2005; Espana, et al., 2001), these clinical trials involved small patient populations, short-term follow-up, and lacked comparison groups. Naeini et al. (2005) reported on 45 patients with hypertrophic scars or keloids that were randomly divided to receive either bleomycin tattoo or cryotherapy combined with intralesional triamcinolone injection. Both treatment groups had a high response rate (i.e., 88%), however for large lesions, the response rate was significantly better for bleomycin (p=.03). Aggarwal and colleagues (2008) reported that bleomycin may be used as a first-line treatment modality for management of keloid and hypertrophic scars. The group of authors evaluated 50 patients who received bleomycin applications for the treatment of keloids or hypertrophic scars. Eighty percent of patients showed satisfactory regression in size of the lesion while symptomatic relief of pruritus was obtained in 40 patients. Recurrence was seen in seven patients. Nonetheless, despite a favorable response to bleomycin treatment regimens in these few trials, further investigation is needed to support the potential benefit of bleomycin therapy and improved long-term clinical outcomes.

Verapamil hydrochloride: Verapamil hydrochloride injection, a calcium-channel antagonist, has also been investigated as a treatment for scar tissue by some author. Verapamil inhibits the synthesis /secretion of extracellular molecules (including collagen) and increases collagenase, although the actual benefit of calcium antagonists on scar tissue is not clearly established. Limited clinical trials have shown promising results. Cure rates of 54% have been reported in the published literature with a follow-up period extending to 18 months. Shaffer et al. (2002) reported that overall follow-up of one year is required to ensure a keloidal scar will not reappear. In a study by Copcu et al. (2004) it was reported that surgical excision with W-plasty or skin grafting and intralesional verapamil injection was a good alternative for the treatment of keloids. The study included 22 patients with keloids and one patient who developed a hypertrophic scar after blepharoplasty. After surgical excision all patients received intralesional verapamil injection. Patients were followed for two years after the operation and recurrences, characteristics of the lesions and symptoms were recorded. At two years post surgery, two patients had keloids smaller than the original lesions, two had lesions that looked like hypertrophic scars, four patients had pruritus and one patient developed a keloid at the donor site. In a randomized trial, Margaret Shanthi et al. (2008) compared the efficacy of verapamil with that of triamcinolone injections in treating hypertrophic scars and keloids. The authors noted that both drugs reduced vascularity, pliability, height and width of the scar after three weeks of treatment, with treatment effects present at one year post follow-up in a study population involving 54 patients. The rate of reduction was more rapid with triamcinolone injections, although verapamil resulted in less adverse drug reactions. In the author's opinion, verapamil may be considered an alternative to triamcinolone in the treatment of hypertrophic scars and keloids.

Etanercept: Etanercept (Enbrel®) is a tumor necrosis factor alpha antagonist being investigated for the treatment of excessive scarring. Injecting etanercept intralesionally theoretically reduces local inflammatory and fibrotic activity within keloid scars. Evidence evaluating safety and efficacy is lacking, however one group of authors (Berman, et al, 2008) compared etanercept with triamcinolone acetonide (TAC) for the treatment of keloids (n=20). Subjects were randomly assigned to receive either etanercept or TAC for two months. Both treatments were safe, well tolerated and improved parameters such as reduction in keloid height, erythema, and pruritus. TAC was more effective in improving keloid height and volume; etanercept was more effective in

reducing erythema and pruritus. Although these reported outcomes are promising, further studies are needed to support safety, efficacy and overall clinical utility compared to other well-established treatments.

Botulinum Toxin Type A: Botulinum toxin type A (BTXA, Botox® A) intralesional injection has been investigated as a treatment for keloid scars (Gupta, Sharma, 2011; Zhibo, et al., 2010; Uyesugi, et al., 2010; Zhibo and Miaobo, 2009). BTXA is a considered a potent growth factor involved in wound healing and theoretically has anti-hypertrophic scar properties, although the molecular mechanism is not clearly established. One uncontrolled prospective study (n=12) reported promising results which included regression in size and flattening (Zhibo, and Miaobo, 2009). Overall however, evidence in the published scientific literature is insufficient to support safety and efficacy at this time and further research is necessary to establish the benefit of this therapy in treating keloid scars.

Professional Societies/Organizations
The American Society of Plastic Surgeons, the American Academy of Dermatology, and the American Osteopathic College of Dermatology provide information regarding various treatments aimed at improving the appearance of scars and scar revision. However, recommendations such as a formal guideline or a position statement could not be found regarding suggested treatments.

Use Outside of the US: No relevant information.

Summary
Revision of scar tissue solely to improve physical appearance is considered cosmetic and not medically necessary. When the presence of scar tissue results in a functional impairment or cause symptoms, revision may be medically necessary and can be performed by a variety of established techniques. Additional well-designed studies evaluating new and emerging therapies such as interferon, bleomycin, verapamil, botulinum toxin type A (Botox®A and etanercept (Enbrel®) are necessary before the clinical utility of these treatments can be established.

Coding/Billing Information

Note: 1) This list of codes may not be all-inclusive.
2) Deleted codes and codes which are not effective at the time the service is rendered may not be eligible for reimbursement

Covered when medically necessary:

CPT®* Codes	Description
11400	Excision, benign lesion including margins, except skin tag (unless listed elsewhere), trunk, arms or legs; excised diameter 0.5 cm or less
11401	Excision, benign lesion including margins, except skin tag (unless listed elsewhere), trunk, arms or legs; excised diameter 0.6 to 1.0 cm
11402	Excision, benign lesion including margins, except skin tag (unless listed elsewhere), trunk, arms or legs; excised diameter 1.1 to 2.0 cm
11403	Excision, benign lesion including margins, except skin tag (unless listed elsewhere), trunk, arms or legs; excised diameter 2.1 to 3.0 cm
11404	Excision, benign lesion including margins, except skin tag (unless listed elsewhere), trunk, arms or legs; excised diameter 3.1 to 4.0 cm
11406	Excision, benign lesion including margins, except skin tag (unless listed elsewhere), trunk, arms or legs; excised diameter over 4.0 cm
11420	Excision, benign lesion including margins, except skin tag (unless listed elsewhere), scalp, neck, hands, feet, genitalia; excised diameter 0.5 cm or less
11421	Excision, benign lesion including margins, except skin tag (unless listed elsewhere), scalp, neck, hands, feet, genitalia; excised diameter 0.6 to 1.0 cm
11422	Excision, benign lesion including margins, except skin tag (unless listed

	elsewhere), scalp, neck, hands, feet, genitalia; excised diameter 1.1 to 2.0 cm
11423	Excision, benign lesion including margins, except skin tag (unless listed elsewhere), scalp, neck, hands, feet, genitalia; excised diameter 2.1 to 3.0 cm
11424	Excision, benign lesion including margins, except skin tag (unless listed elsewhere), scalp, neck, hands, feet, genitalia; excised diameter 3.1 to 4.0 cm
11426	Excision, benign lesion including margins, except skin tag (unless listed elsewhere), scalp, neck, hands, feet, genitalia; excised diameter over 4.0 cm
11440	Excision, other benign lesion including margins, except skin tag (unless listed elsewhere), face, ears, eyelids, nose, lips, mucous membrane; excised diameter 0.5 cm or less
11441	Excision, other benign lesion including margins, except skin tag (unless listed elsewhere), face, ears, eyelids, nose, lips, mucous membrane; excised diameter 0.6 to 1.0 cm
11442	Excision, other benign lesion including margins, except skin tag (unless listed elsewhere), face, ears, eyelids, nose, lips, mucous membrane; excised diameter 1.1 to 2.0 cm
11443	Excision, other benign lesion including margins, except skin tag (unless listed elsewhere), face, ears, eyelids, nose, lips, mucous membrane; excised diameter 2.1 to 3.0 cm
11444	Excision, other benign lesion including margins, except skin tag (unless listed elsewhere), face, ears, eyelids, nose, lips, mucous membrane; excised diameter 3.1 to 4.0 cm
11446	Excision, other benign lesion including margins, except skin tag (unless listed elsewhere), face, ears, eyelids, nose, lips, mucous membrane; excised diameter over 4.0 cm
11900†	Injection, intralesional; up to and including seven lesions
11901†	Injection, intralesional; more than seven lesions
15002	Surgical preparation or creation of recipient site by excision of open wounds, burn eschar, or scar (including subcutaneous tissues), or incisional release of scar contracture, trunk, arms, legs; first 100 sq cm or 1% of body area of infants and children
15003	Surgical preparation or creation of recipient site by excision of open wounds, burn eschar, or scar (including subcutaneous tissues), or incisional release of scar contracture, trunk, arms, legs; each additional 100 sq cm, or part thereof, or each additional 1% of body area of infants and children (List separately in addition to code for primary procedure)
15004	Surgical preparation or creation of recipient site by excision of open wounds, burn eschar, or scar (including subcutaneous tissues), or incisional release of scar contracture, face, scalp, eyelids, mouth, neck, ears, orbits, genitalia, hands, feet and/or multiple digits; first 100 sq cm or 1% of body area of infants and children
15005	Surgical preparation or creation of recipient site by excision of open wounds, burn eschar, or scar (including subcutaneous tissues), or incisional release of scar contracture, face, scalp, eyelids, mouth, neck, ears, orbits, genitalia, hands, feet and/or multiple digits; each additional 100 sq cm or each additional 1% of body area of infants and children (List separately in addition to code for primary procedure)
15040	Harvest of skin for tissue cultured skin autograft, 100 sq cm or less
15100	Split-thickness autograft, trunk, arms, legs; first 100 sq cm or less, or 1% of body area of infants and children (except 15050)
15101	Split-thickness autograft, trunk, arms, legs; each additional 100 sq cm, or each additional 1% of body area of infants and children, or part thereof (List separately in addition to code for primary procedure)
15110	Epidermal autograft, trunk, arms, legs; first 100 sq cm or less, or 1% of body area of infants and children
15111	Epidermal autograft, trunk, arms, legs; each additional 100 sq cm, or each additional 1% of body area of infants and children, or part thereof (List separately

	in addition to code for primary procedure)
15115	Epidermal autograft, face, scalp, eyelids, mouth, neck, ears, orbits, genitalia, hands, feet, and/or multiple digits; first 100 sq cm or less, or 1% of body area of infants and children
15116	Epidermal autograft, face, scalp, eyelids, mouth, neck, ears, orbits, genitalia, hands, feet, and/or multiple digits; each additional 100 sq cm, or each additional 1% of body area of infants and children, or part thereof (List separately in addition to code for primary procedure)
15120	Split-thickness autograft, face, scalp, eyelids, mouth, neck, ears, orbits, genitalia, hands, feet, and/or multiple digits; first 100 sq cm or less, or 1% of body area of infants and children (except 15050)
15121	Split-thickness autograft, face, scalp, eyelids, mouth, neck, ears, orbits, genitalia, hands, feet, and/or multiple digits; each additional 100 sq cm, or each additional 1% of body area of infants and children, or part thereof (List separately in addition to code for primary procedure)
15130	Dermal autograft, trunk, arms, legs; first 100 sq cm or less, or 1% of body area of infants and children
15131	Dermal autograft, trunk, arms, legs; each additional 100 sq cm, or each additional 1% of body area of infants and children, or part thereof (List separately in addition to code for primary procedure)
15135	Dermal autograft, face, scalp, eyelids, mouth, neck, ears, orbits, genitalia, hands, feet, and/or multiple digits; first 100 sq cm or less, or 1% of body area of infants and children
15136	Dermal autograft, face, scalp, eyelids, mouth, neck, ears, orbits, genitalia, hands, feet, and/or multiple digits; each additional 100 sq cm, or each additional 1% of body area of infants and children, or part thereof (List separately in addition to code for primary procedure)
15200	Full thickness graft, free, including direct closure of donor site, trunk; 20 sq cm or less
15201	Full thickness graft, free, including direct closure of donor site, trunk; each additional 20 sq cm, or part thereof (List separately in addition to code for primary procedure)
15220	Full thickness graft, free, including direct closure of donor site, scalp, arms, and/or legs; 20 sq cm or less
15221	Full thickness graft, free, including direct closure of donor site, scalp, arms, and/or legs; each additional 20 sq cm or part thereof (List separately in addition to code for primary procedure)
15240	Full thickness graft, free, including direct closure of donor site, forehead, cheeks, chin, mouth, neck, axillae, genitalia, hands, and/or feet; 20 sq cm or less
15241	Full thickness graft, free, including direct closure of donor site, forehead, cheeks, chin, mouth, neck, axillae, genitalia, hands, and/or feet; each additional 20 sq cm or part thereof (List separately in addition to code for primary procedure
15260	Full thickness graft, free, including direct closure of donor site, nose, ears, eyelids, and/or lips; 20 sq cm or less
15261	Full thickness graft, free, including direct closure of donor site, nose, ears, eyelids, and/or lips; each additional 20 sq cm or part thereof (List separately in addition to code for primary procedure)
15600	Delay of flap or sectioning of flap (division and inset); at trunk
15610	Delay of flap or sectioning of flap (division and inset); at scalp, arms, or legs
15620	Delay of flap or sectioning of flap (division and inset); at forehead, cheeks, chin, neck, axillae, genitalia, hands, or feet
15630	Delay of flap or sectioning of flap (division and inset); at eyelids, nose, ears, or lips
15650	Transfer, intermediate, of any pedicle flap (eg, abdomen to wrist, Walking tube), any location
15740	Flap; island pedicle requiring identification and dissection of an anatomically named axial vessel

15750	Flap; neurovascular pedicle
15760	Graft; composite (eg, full thickness of external ear or nasal ala), including primary closure, donor area
17110	Destruction (eg, laser surgery, electrosurgery, cryosurgery, chemosurgery, surgical curettement), of benign lesions other than skin tags or cutaneous vascular proliferative lesions; up to 14 lesions
17111	Destruction (eg, laser surgery, electrosurgery, cryosurgery, chemosurgery, surgical curettement), of benign lesions other than skin tags or cutaneous vascular proliferative lesions; 15 or more lesions
15770	Graft; derma-fat-fascia
31830	Revision of tracheostomy scar
67961	Excision and repair of eyelid, involving lid margin, tarsus, conjunctiva, canthus, or full thickness, may include preparation for skin graft or pedicle flap with adjacent tissue transfer or rearrangement; up to one-fourth of lid margin
67966	Excision and repair of eyelid, involving lid margin, tarsus, conjunctiva, canthus, or full thickness, may include preparation for skin graft or pedicle flap with adjacent tissue transfer or rearrangement; over one-fourth of lid margin
67971	Reconstruction of eyelid, full thickness by transfer of tarsoconjunctival flap from opposing eyelid; up to two-thirds of eyelid, 1 stage or first stage
67973	Reconstruction of eyelid, full thickness by transfer of tarsoconjunctival flap from opposing eyelid; total eyelid, lower, 1 stage or first stage
67974	Reconstruction of eyelid, full thickness by transfer of tarsoconjunctival flap from opposing eyelid; total eyelid, upper, 1 stage or first stage
67975	Reconstruction of eyelid, full thickness by transfer of tarsoconjunctival flap from opposing eyelid; second stage
77401	Radiation treatment delivery, superficial and/or ortho voltage

†**Note: Covered when medical necessity criteria are met and when used to represent intralesional injection of corticosteroid or Flourouracil (5FU) for scar revision.**

HCPCS Codes	**Description**
A6025	Gel sheet for dermal or epidermal application, (e.g., silicone, hydrogel, other), each
J1700	Injection, hydrocortisone acetate, up to 25 mg
J1710	Injection, hydrocortisone sodium phosphate, up to 50 mg
J1720	Injection, hydrocortisone sodium succinate, up to 100 mg
J9190	Flourouracil, 500 mg

Not Medically Necessary/Cosmetic/Not Covered when used to report services for the treatment of scar revision:

CPT* Codes	**Description**
11950	Subcutaneous injection of filling material (eg, collagen); 1 cc or less
11951	Subcutaneous injection of filling material (eg, collagen); 1.1 to 5.0 cc
11952	Subcutaneous injection of filling material (eg, collagen); 5.1 to 10.0 cc
11954	Subcutaneous injection of filling material (eg, collagen); over 10.0 cc
15780	Dermabrasion; total face (eg, for acne scarring, fine wrinkling, rhytids, general keratosis)
15781	Dermabrasion; segmental, face
15782	Dermabrasion; regional, other than face
15783	Dermabrasion; superficial, any site, (eg, tattoo removal)
15786	Abrasion; single lesion (eg, keratosis, scar)
15787	Abrasion; each additional four lesions or less (List separately in addition to code for primary procedure)

15788	Chemical peel, facial; epidermal
15789	Chemical peel, facial; dermal
15792	Chemical peel, nonfacial; epidermal
15793	Chemical peel, nonfacial; dermal
17999	Unlisted procedure, skin, mucous membrane and subcutaneous tissue

Experimental/Investigational/Unproven/Not Covered when used to report other injectable intralesional treatment of scar revision:

CPT* Codes	Description
11900	Injection, intralesional; up to and including seven lesions
11901	Injection, intralesional; more than seven lesions

HCPCS Codes	Description
J0585	Injection, onabotulinumtoxinA, 1 unit
J0586	Injection, abobotulinumtoxinA, 5 units
J1438	Injection, etanercept, 25 mg (code may be used for Medicare when drug administered under the direct supervision of a physician, not for use when drug is self-administered)
J1826	Injection, interferon beta-1a, 30 mcg
J1830	Injection interferon beta-1b, 0.25 mg (code may be used for Medicare when drug administered under direct supervision of a physician, not for use when drug is self-administered)
J9040	Injection, bleomycin sulfate, 15 units
J9212	Injection, interferon alfacon-1, recombinant, 1 mcg
J9213	Injection, interferon alfa-2A, recombinant, 3 million units
J9214	Injection, interferon alfa-2B, recombinant, 1 million units
J9215	Injection, interferon alfa-N3, (human leukocyte derived), 250,000 IU
J9216	Injection, interferon, gamma 1-B, 3 million units
Q3025	Injection, interferon beta 1-A, 11 mcg for intramuscular use (Code deleted 12/31/2013)
Q3026	Injection, interferon beta-1a, 11 mcg for subcutaneous use(Code deleted 12/31/2013)
Q3027	Injection, interferon beta-1a, 1 mcg for intramuscular use
Q3028	Injection, interferon beta-1a, 1 mcg for subcutaneous use
S0145	Injection, pegylated interferon alfa-2a, 180 mcg per ml
S0148	Injection, pegyla ted interferon alfa-2B, 10 mcg

***Current Procedural Terminology (CPT®) ©2013 American Medical Association: Chicago, IL.**

References

1. Aggarwal H, Saxena A, Lubana PS, Mathur RK, Jain DK. Treatment of keloids and hypertrophic scars using bleomycin. J Cosmet Dermatol. 2008 Mar;7(1):43-9.

2. Akaishi S, Koike S, Dohi T, Kobe K, Hyakusoku H, Ogawa R. Nd:YAG Laser Treatment of Keloids and Hypertrophic Scars. Eplasty. 2012;12:e1. Epub 2012 Jan 11.

3. Al-Attar A, Mess S, Thomassen JM, Kauffman CL, Davison SP. Keloid pathogenesis and treatment. Plast Reconstr Surg. 2006 Jan;117(1):286-300.

4. Alster TS. Laser revision of scars. eMedicine specialties > dermatology > physical modalities including laser applications. Updated Mar 17, 2010. Accessed February 17, 2011. Available at URL address: http://www.emedicine.com/derm/topic519.htm

5. Alster TS. Laser scar revision: comparison study of 585-nm pulsed dye laser with and without intralesional corticosteroids. Dermatol Surg. 2003 Jan;29(1):25-9.

6. Alster TS. Laser treatment of hypertrophic scars, keloids and striae. Dermatol Clin. 1997 Jul;15(3):419-29.

7. Alster TS, Williams CM. Treatment of keloid sternotomy scars with 585-nm flashlamp-pumped pulsed-dye laser. Lancet. 1995 May;345(8959):1198-2000.

8. Alster T, Zaulyanov L. Laser scar revision: a review. Dermatol Surg. 2007 Feb;33(2):131-40.

9. American Academy of Dermatology (AAD). What is a scar. Washington, DC: Public Resource Center, AAD; 2004. Copyright © 2010 American Academy of Dermatology. Accessed February 17, 2011. Available at URL address: http://www.aad.org/public/Publications/pamphlets/WhatisaScar.htm

10. American Osteopathic College of Dermatology (AOCD). Keloids and hypertrophic scars. © 2013 by A.O.C.D. Accessed February 21, 2014. Available at URL address: http://www.aocd.org/skin/dermatologic_diseases/keloids_and_hypert.html

11. American Society of Plastic Surgeons (ASPS). Scar revision. Minimize a scar. Copyright © 2014 American Society of Plastic Surgeons. Accessed February 21, 2014. Available at URL address: http://www.plasticsurgery.org/Patients_and_Consumers/Procedures/Reconstructive_Procedures/Scar_Revision.html

12. Apikian M, Goodman G. Intralesional 5-fluorouracil in the treatment of keloid scars. Australas J Dermatol. 2004 May;45(2):140-3.

13. Asilian A, Darougheh A, Shariati F. New combination of triamcinolone, 5-Fluorouracil, and pulsed-dye laser for treatment of keloid and hypertrophic scars. Dermatol Surg. 2006 Jul;32(7):907-15.

14. Atiyeh BS. Nonsurgical management of hypertrophic scars: evidence-based therapies, standard practices, and emerging methods. Aesthetic Plast Surg. 2007 Sep-Oct;31(5):468-92; discussion 493-4. Epub 2007 Jun 18.

15. Barolet D, Boucher A. Prophylactic low-level light therapy for the treatment of hypertrophic scars and keloids: a case series. Lasers Surg Med. 2010 Aug;42(6):597-601.

16. Batra RS. Surgical techniques for scar revision. Skin Therapy Lett. 2005 May;10(4):4-7.

17. Berman B. Biological agents for controlling excessive scarring. Am J Clin Dermatol. 2010;11 Suppl 1:31-4. doi: 10.2165/1153419-S0-000000000-00000.

18. Berman B. Keloid and hypertrophic scar. eMedicine specialties. Dermatology. Benign neoplasms. Updated May 14, 2010. Accessed February 17, 2011. Available at URL address: http://www.emedicine.com/DERM/topic205.htm

19. Berman B, Patel JK, Perez OA, Viera MH, Amini S, Block S, Zell D, Tadicherla S, Villa A, Ramirez C, De Araujo T. Evaluating the tolerability and efficacy of etanercept compared to triamcinolone acetonide for the intralesional treatment of keloids. J Drugs Dermatol. 2008 Aug;7(8):757-61.

20. Berman B, Villa AM, Ramirez CC. Novel opportunities in the treatment and prevention of scarring. Cutan Med Surg. 2004;8 Suppl 3:32-6.

21. Butler PD, Longaker MT, Yang GP. Current progress in keloid research and treatment. J Am Coll Surg. 2008 Apr;206(4):731-41.

22. Carniol PJ, Talwar A, Carniol ET. Laser treatment of facial scars. Facial Plast Surg. 2010 Dec;26(6):519-21.

23. Chen MA, Davidson TM. Scar management: prevention and treatment strategies. Curr Opin Otolaryngol Head Neck Surg. 2005 Aug;13(4):242-7.

24. Connell PG, Harland CC. Treatment of keloid scars with pulsed dye laser and intralesional steroid. J Cutan Laser Ther. 2000 Sep;2(3):147-50.

25. Copcu E, Sivrioglu N, Oztan Y. Combination of surgery and intralesional verapamil injection in the treatment of the keloid. Burn Care Rehabil. 2004 Jan-Feb;25(1):1-7.

26. Darougheh A, Asilian A, Shariati F. Intralesional triamcinolone alone or in combination with 5-fluorouracil for the treatment of keloid and hypertrophic scars. Clin Exp Dermatol. 2009 Mar;34(2):219-23.

27. ECRI Institute. Pulse-dye laser (PDL) therapy for treatment of hypertrophic scars and keloids. [Emerging Technology Report]. Plymouth meeting (PA):ECRI Institute. 2002 June. Available at URL address: http://www.ecri.org.

28. España A, Solano T, Quintanilla E. Bleomycin in the treatment of keloids and hypertrophic scars by multiple needle punctures. Dermatol Surg. 2001 Jan;27(1):23-7.

29. Fitzpatrick RE. Treatment of inflamed hypertrophic scars using intralesional 5-FU. Dermatol Surg. 1999 Mar;25(3):224-32.

30. Flickinger JC. A radiobiological analysis of multicenter data for postoperative keloid radiotherapy. Int J Radiat Oncol Biol Phys. 2011 Mar 15;79(4):1164-70.

31. Gupta S, Sharma VK. Standard guidelines of care: Keloids and hypertrophic scars. Indian J Dermatol Venereol Leprol. 2011 Jan-Feb;77(1):94-100.

32. Habif TP. Hypertrophic scars and keloids. In: Habif: Clinical Dermatology, 5th ed., Copyright © 2009. Ch 20: Benign Skin Tumors.

33. Haurani MJ, Foreman K, Yang JJ, Siddiqui A. 5-Fluorouracil treatment of problematic scars. Plast Reconstr Surg. 2009 Jan;123(1):139-48; discussion 149-51.

34. Juckett G, Hartman-Adams H. Management of keloids and hypertrophic scars. Am Fam Physician. 2009 Aug 1;80(3):253-60.

35. Kontochristopoulos G, Stefanaki C, Panagiotopoulos A, Stefanaki K, Argyrakos T, Petridis A, Katsambas A. Intralesional 5-fluorouracil in the treatment of keloids: an open clinical and histopathologic study. J Am Acad Dermatol. 2005 Mar;52(3 Prt 1):474-9.

36. Lee JH, Kim SE, Lee AY. Effects of interferon-alpha2b on keloid treatment with triamcinolone acetonide intralesional injection. Int J Dermatol. 2008 Feb;47(2):183-6.

37. Lee KK, Mehrany K, Swanson NA. Surgical revision. Dermatol Clin. 2005 Jan;23(1):141-50.

38. Lupton JR, Alster TS. Laser scar revision. Dermatol Clin. 2002 Jan;20(1):55-65.

39. Mankuskiatti W. Keloids. In Rakel: Conn's Current Therapy 2006, 58th ed., Copyright © 2006.

40. Manuskiatti W, Fitzpatrick RE. Treatment response of keloidal and hypertrophic sternotomy scars: comparison among intralesional corticosteroid, 5-fluorouracil, and 585-nm flashlamp-pumped pulsed-dye laser treatments. Arch Dermatol. 2002 Sep;138(9):1149-55.

41. Margaret Shanthi FX, Ernest K, Dhanraj P. Comparison of intralesional verapamil with intralesional triamcinolone in the treatment of hypertrophic scars and keloids. Indian J Dermatol Venereol Leprol. 2008 Jul-Aug;74(4):343-8.

42. Mustoe TA, Cooter RD, Gold MH, Hobbs FDR, Ramelet AA, Shakespeare PG, et al.; International Advisory Panel on Scar Management. International clinical recommendations on scar management. Plast Reconstr Surg. 2002 Aug;110(2):560-71.

43. Mutalik S. Treatment of keloids and hypertrophic scars. Indian J Dermatol Venereol Leprol. 2005 Jan-Feb;71(1):3-8.

44. Nanda S, Reddy BS. Intralesional 5-fluorouracil as a treatment modality of keloids. Dermatol Surg. 2004 Jan;30(1):54-6; discussion 56-7.

45. Naeini FF, Najafian J, Ahmadpour K. Bleomycin tattooing as a promising therapeutic modality in large keloids and hypertrophic scars. Dermatol Surg. 2005 Aug;32(8):1023-9; discussion 1029-30.

46. Pai VB, Cummings I. Are there any good treatments for keloid scarring after sternotomy? Are there any good treatments for keloid scarring after sternotomy? Interact Cardiovasc Thorac Surg. 2011 Oct;13(4):415-8. Epub 2011 Jul 7.

47. Porter JP. Treatment of the keloid. What is new? Otolaryngol Clin North Am. 2002 Feb;35(1):207-20, viii.

48. Saray Y, Güleç AT. Treatment of keloids and hypertrophic scars with dermojet injections of bleomycin: a preliminary study. Int J Dermatol. 2005 Sep;44(9):777-84.

49. Shaffer JJ, Taylor SC, Cook-Bolden F. Keloidal scars: a review with a critical look at therapeutic options. J Am Acad Dermatol. 2002 Feb;46(2 Suppl Understanding):S63-97.

50. Shridharani SM, Magarakis M, Manson PN, Singh NK, Basdag B, Rosson GD. The emerging role of antineoplastic agents in the treatment of keloids and hypertrophic scars: a review. Ann Plast Surg. 2010 Mar;64(3):355-61.

51. Smith DI, Swamy PM, Heffernan MP. Off-label uses of biologics in dermatology: interferon and intravenous immunoglobulin (part 1 of 2*).* J Am Acad Dermatol. 2007 Jan;56(1):e1-54.

52. Uyesugi B, Lippincott B, Dave S. Treatment of a painful keloid with botulinum toxin type A. Am J Phys Med Rehabil. 2010 Feb;89(2):153-5.

53. Young, DM, Mathes SJ. Trauma. In: Schwartz SI, G. Shires GT, Spencer FC, Daly JM, Fischer JE, Galloway AC, editors. Principles of surgery. Philadelphia, PA: McGraw-Hill Companies, Inc.; 1999. Chapter 13. Skin and subcutaneous tissue.

54. Wang XQ, Liu YK, Qing C, Lu SL. A review of the effectiveness of antimitotic drug injections for hypertrophic scars and keloids. Ann Plast Surg. 2009 Dec;63(6):688-92.

55. Xiao Z, Zhang F, Lin W, Zhang M, Liu Y. Effect of botulinum toxin type A on transforming growth factor beta1 in fibroblasts derived from hypertrophic scar: a preliminary report. Aesthetic Plast Surg. 2010 Aug;34(4):424-7.

56. Zhibo X, Miaobo Z. Intralesional botulinum toxin type A injection as a new treatment measure for keloids. Plast Reconstr Surg. 2009 Nov;124(5):275e-7e

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