EmblemHealth

Application of Bioengineered Skin Substitutes

Last Review Date: July 11, 2025	Number: MG.MM.ME.69aC6

Medical Guideline Disclaimer

Property of EmblemHealth. All rights reserved. The treating physician or primary care provider must submit to EmblemHealth the clinical evidence that the patient meets the criteria for the treatment or surgical procedure. Without this documentation and information, EmblemHealth will not be able to properly review the request for prior authorization. The clinical review criteria expressed below reflects how EmblemHealth determines whether certain services or supplies are medically necessary. EmblemHealth established the clinical review criteria based upon a review of currently available clinical information (including clinical outcome studies in the peer-reviewed published medical literature, regulatory status of the technology, evidence-based guidelines of public health and health research agencies, evidence-based guidelines and positions of leading national health professional organizations, views of physicians practicing in relevant clinical areas, and other relevant factors). EmblemHealth expressly reserves the right to revise these conclusions as clinical information changes, and welcomes further relevant information. Each benefit program defines which services are covered. The conclusion that a particular service or supply is medically necessary does not constitute a representation or warranty that this service or supply is covered and/or paid for by EmblemHealth, as some programs exclude coverage for services or supplies that EmblemHealth considers medically necessary. If there is a discrepancy between this guideline and a member's benefits program, the benefits program will govern. In addition, coverage may be mandated by applicable legal requirements of a state, the Federal Government or the Centers for Medicare & Medicaid Services (CMS) for Medicare and Medicaid members. All coding and web site links are accurate at time of publication. EmblemHealth Services Company LLC, ("EmblemHealth") has adopted the herein policy in providing management, administrative and other services to EmblemHealth Plan, Inc., EmblemHealth Insurance Company, EmblemHealth Services Company, LLC and Health Insurance Plan of Greater New York (HIP) related to health benefit plans offered by these entities. All of the aforementioned entities are affiliated companies under common control of EmblemHealth Inc.

Definitions

[Skip definitions and go directly to guideline]

Autologous skin grafts (Aka autografts)	Permanent covers that use skin from different parts of the individual's body. These grafts consist of the epidermis and a dermal component of variable thickness. A split-thickness skin graft (STSG) includes the entire epidermis and a portion of the dermis. A full thickness skin graft (FTSG) includes all layers of the skin. Although autografts are the optimal choice for full thickness wound coverage, areas for skin harvesting may be limited, particularly in cases of large burns or venous stasis ulceration. Harvesting procedures are painful, disfiguring and require additional wound care.
Allografts and xenografts	Allografts which use skin from another human (e.g., cadaver) and Xenografts which use skin from another species (e.g., porcine or bovine) may also be employed as temporary skin replacements, but they must later be replaced by an autograft or the ingrowth of the patient's own skin.
Bioengineered Skin / Cultured Epidermal Autografts (CEA)	Autografts are derived from the patient's own skin cells grown or cultured from very small amounts of skin or hair follicle. Production time is prolonged. One such product is grown on a layer of irradiated mouse cells, bestowing some elements of a xenograft. Wide spread usage has not been available due to limited availability or access to the technology.
Bioengineered Skin Substitutes or Cellular and Tissue Based Products (CTPs)	Products developed in an attempt to circumvent problems inherent with autografts, allografts and xenografts. These constitute biologic covers for refractory wounds with full thickness skin loss secondary to 3rd degree burns or other disease processes such as diabetic neuropathic ulcers and the skin loss of chronic venous stasis or venous hypertension. The production of these biologic skin substitutes or CTPs varies by company and product, but generally involves the creation of immunologically inert biological products containing protein, hormones or enzymes seeded into a matrix which may provide protein or growth factors proposed to stimulate or facilitate healing or promote epithelization. A variety of biosynthetic and tissue-engineered skin substitution products marketed as Human Skin Equivalents (HSE) or Cellular or Tissue-based Products (CTP) are manufactured under an array of trade names and marketed for a variety of indications. All are procured, produced, manufactured, processed and promoted in sufficiently different manners to preclude direct product comparison for equivalency or superiority in randomized controlled trials. Sufficient data is available to establish distinct inferiority to human skin autografts and preclude their designation as skin equivalence.

	Definitions per CTP®: ▪ Autografts/tissue cultured autografts — include the harvest or application of an autologous skin graft ▪ Skin substitute grafts —include non-autologous human cellular and tissue products (e.g., dermal or epidermal, cellular and acellular, homograft or allograft), non-human cellular or tissue products (i.e., xenograft), and biological products (synthetic or xenogeneic) that are applied in a sheet over an open wound to augment wound closure or skin growth.

Bioengineered skin substitutes or CTP classification

- Human skin allografts derived from donated human skin (cadavers)
- Allogeneic matrices derived from human tissue (fibroblasts or membrane)
- Composite matrices derived from human keratinocytes, fibroblasts and xenogeneic collagen
- Acellular matrices derived from xenogeneic collagen or tissue

Human Skin Allografts are bioengineered from human skin components and human tissue which have had intact cells removed or treated to avoid immunologic rejection. They are available in different forms promoted to allow scaffolding, soft tissue filling, growth factors and other bioavailable hormonal or enzymatic activity.

Allogeneic Matrices are usually derived from human neonatal fibroblasts of the foreskin that may contain metabolically active or regenerative components primarily used for soft tissue support, though some have been approved for the treatment of full-thickness skin and soft tissue loss. Most are biodegradable and disappear after 3-4 weeks implantation.

Composite Matrices are derived from human keratinocytes and fibroblasts supported by a scaffold of synthetic mesh or xenogeneic collagen. These are also referred to as human skin equivalent but are unable to be used as autografts due to immunologic rejection or degradation of the living components by the host. Active cellular components continue to generate bioactive compounds and protein that may accelerate wound healing and epithelial regrowth.

Acellular Matrices are derived from other than human skin and include the majority of bioengineered skin substitutes. All are composed of allogeneic or xenogeneic derived collagen, membrane, or cellular remnants proposed to simulate or exaggerate the characteristics of human skin. All propose to promote healing by the creation of localized intensification of an array of hormonal and enzymatic activity to accelerate closure by migration of native dermal and epithelial components, rather than function as distinctly incorporated tissue closing the skin defect.

EmblemHealth guideline-specific definitions

Chronic Wound — defined as a wound that does not respond to standard wound treatment for at least a 30 day period during organized comprehensive conservative therapy

Failed Response — defined as an ulcer or skin deficit that has failed to respond to documented **appropriate wound-care measures**, has increased in size or depth, or has not changed in baseline size or depth and has no indication that improvement is likely (i.e., granulation, epithelialization or progress towards closing)

Unsuccessful treatment — defined as increase in size or depth of an ulcer or no change in baseline size or depth and no sign of improvement or indication that improvement is likely (such as granulation, epithelialization or progress towards closing) for a period of 4 weeks past start of therapy. See **Limitations/Exclusions**

Related Medical Guidelines

Hyperbaric Oxygen Therapy
Vacuum-Assisted Wound Closure

Guideline

This guideline is applicable to the use of dermal or epidermal substitute tissue (of human or non-human origin) that is with or without bioengineered or processed elements, or with or without metabolically active elements.

The document addresses the management of chronic non-healing wounds or skin deficits with the goal of wound and skin closure when standard or conservative measures have failed. While lower extremity ulcers have numerous causes such as burns, trauma, immobility, ischemia or other neurologic impairment, over 90% of the lesions are related to venous stasis disease and diabetic neuropathy. Therefore, the focus of this guideline is the application of bioengineered skin substitute material to diabetic foot ulcers (DFUs) and venous leg ulcers (VLUs) of the lower extremities and the reasonable and necessary (R&N) threshold for utilization of skin substitutes.

The designated use of Human Cellular or Tissue Based Products (**CTPs**) or Skin Substitutes must be as coverage for a superficial skin deficit that has persisted (despite optimal wound care) for ≥ 4 weeks.

Note regarding products: Evaluation of the clinical literature indicates that studies comparing the efficacy of bioengineered skin substitute to alternative wound care approaches with patients' autologous skin are limited in number, apply mainly to generally healthy patients, and examine only a small portion of the skin substitute products available in the United States. Therefore, all products with FDA clearance/approval or designated 361 HCT/P exemption used in accordance with that product's individualized application guidelines will be equally considered for the purpose of this guideline and may be considered reasonable and necessary. (See Applicable Procedure Codes for specific products)

EmblemHealth considers the application of skin substitutes to burns, ulcers or wounds with failed response when all of the following criteria are met:

1. Partial- or full-thickness ulcers, not involving tendon, muscle, joint capsule or exhibiting exposed bone or sinus tracts, with a clean granular base
2. Skin deficit ≥ 1.0 cm^2 in size
3. Clean and free of necrotic debris or exudate
4. Presence of adequate circulation/oxygenation to support tissue growth/wound healing, as evidenced by physical examination (e.g., Ankle-Brachial Index [ABI] not < 0.60, toe pressure > 30mm Hg)

Note regarding tobacco: Wound healing is impaired by the systemic use of tobacco. Therefore, ideally members who have smoked will have ceased smoking or have refrained from systemic tobacco intake for at least 4 weeks during conservative wound care and prior to planned bioengineered skin replacement therapy.

EmblemHealth considers the use of skin substitute grafts for lower extremity chronic wounds (i.e., DFU and venous leg ulcer [VLU]) to be medically necessary when any of the following conditions are met:

1. Presence of neuropathic DFU(s), which has failed to respond to conservative wound-care measures of > 4 weeks; during which the member is compliant with recommendations, and without evidence of underlying osteomyelitis or nidus of infection
2. Presence of a venous stasis ulcer ≥ 3 months, but unresponsive to appropriate wound care for ≥ 30 days with documented compliance
3. Presence of a full thickness skin loss ulcer secondary to abscess, injury or trauma that has failed to respond to appropriate control of infection, foreign body, tumor resection or other disease process for a period of ≥ 4 weeks.

In all wound management, the ulcer must be free of infection and underlying osteomyelitis with documentation of the conditions that have been treated and resolved prior to the institution of skin substitute therapy.

For purposes of this guideline, appropriate therapy includes, but is not limited to:

- Control of edema, venous hypertension or lymphedema
- Control of any nidus of infection or colonization with bacterial or fungal elements
- Elimination of underlying cellulitis, osteomyelitis, foreign body, or malignant process
- Appropriate debridement of necrotic tissue or foreign body (exposed bone or tendon)
- For diabetic foot ulcers (DFUs), appropriate non-weight bearing or off-loading pressure
- For venous stasis ulcers, compression therapy provided with documented diligent use of multilayer dressings, compression stockings of > 20mmHg pressure, or pneumatic compression
- Provision of wound environment to promote healing (protection from trauma and contaminants, elimination of inciting or aggravating processes)

Documentation

1. The medical record must clearly show that the guideline criteria have been met, as well as, the appropriate diagnosis and response to treatment (e.g., for DFUs, the medical record should reflect a diagnosis of Type 1 or Type 2 Diabetes as well as the medical management of the condition)

2. A description of the wound(s) must be documented at baseline (prior to beginning conservative treatment) relative to size, location, stage, duration, and presence of infection, in addition to type of treatment given and response
    - This information must be updated in the medical record throughout treatment
    - Wound description must also be documented pre and post treatment with the skin substitute graft being used
    - If obvious signs of worsening or lack of treatment response is noted, continuing treatment with the skin substitute would not be considered medically reasonable and necessary without documentation of a reasonable rationale for doing so
3. Documentation of smoking history, and that the member has received counseling on the effects of smoking on surgical outcomes and treatment for smoking cessation (if applicable) as well as outcome of counselling must be in the medical record
4. Documentation must specifically address circumstances as to why the wound has failed to respond to standard wound care treatment for at least 4 weeks and must reference specific interventions that have failed (e.g., updated medication history, review of pertinent medical problems that may have occurred since the previous wound evaluation, and explanation of the planned skin replacement surgery with choice of skin substitute graft product)
5. The documentation must support the need for skin substitute application and the product used
6. The amount of utilized and wasted skin substitute must be clearly documented in the procedure note with the following minimum information:
    - Date, time and location of ulcer treated
    - Name of skin substitute and how product supplied
    - Amount of product unit used
    - Amount of product unit discarded
    - Reason for the wastage
    - Manufacturer's serial/lot/batch or other unit identification number of graft material. When manufacturer does not supply unit identification, record must document such.

Utilization Guidelines

1. It is the expectation that a specific skin substitute product will be used for the episode of each documented wound, and in compliance with FDA assessments and submitted guidelines for the specific product. Greater than 10 applications for the treatment of a single wound within a 12-week period of time will be considered Not Reasonable and Necessary and will be subject to review.
2. Separately billed repeated use of the skin substitute after 12 weeks for a single wound or episode is non-covered. Alternative or additional skin substitute products used within the 12 week initial wound episode are similarly non-covered when the sum of applications of all Skin Substitutes is > 10 for a single wound.
3. The utilization of bioengineered skin substitute non-compliant with medical necessity or designated guidelines for that specific product may necessitate review or non-coverage as not medically necessary.
4. Labeling for most skin substitute grafts include language suggesting multiple applications; however, EmblemHealth does not expect that every ulcer in every member will require the maximum number of applications listed on the product label or allowed for reimbursement.

Limitations/Exclusions

Note: Due to the propensity for misuse of skin substitute and biological dressing products, reimbursement may be made only when the medical record clearly documents that these products have been used in a comprehensive, organized wound management program. All listed products, unless they are specifically FDA-labeled or cleared for use in the types of wounds being treated, will be considered to be biologic dressings and part of the relevant Evaluation and Management (E/M) service provided and not separately reimbursed.

1. Members receiving a skin substitute graft must be under the care of a physician or non-physician practitioner (NPP) licensed by the state with full scope of practice for the treatment of the systemic disease process(s) etiologic for the condition (e.g., venous insufficiency, diabetes, neuropathy). This concurrent medical management and the identity of the managing medical physician shall be clearly discernable in the medical record and available upon request.
2. The following are considered **not** reasonable and necessary and therefore will be denied:
    - Partial thickness loss with the retention of epithelial appendages is not a candidate for grafting or replacement, as epithelium will repopulate the deficit from the appendages, negating the benefit of overgrafting
    - Skin substitute grafts will be allowed for the episode of wound care in compliance with FDA guidelines for the specific product (see utilization guidelines) not to exceed 10 applications or treatments. In situations where > 1 specific product is used, it is expected that the number of applications or treatments will still not exceed 10
    - Simultaneous use of > 1 product for the episode of wound is not covered. Product change within the episode of wound is allowed, not to exceed the 10 application limit per wound per 12 week period of care
    - Treatment of any chronic skin wound will typically last no > 12 weeks
    - Repeat or alternative applications of skin substitute grafts are not considered medically reasonable and necessary when a previous full course of applications was unsuccessful. Unsuccessful treatment is defined as increase in size or depth of an ulcer or no change in baseline size or depth and no sign of improvement or indication that improvement is likely (such as granulation, epithelialization or progress towards closing) for a period of 4 weeks past start of therapy
    - Retreatment of healed ulcers (those showing > 75% size reduction and smaller than .5 sq.cm) is not considered medically reasonable and necessary
    - Use of skin substitute in the presence of contraindications; e.g.,:
        i. inadequate control of underlying conditions or exacerbating factors (e.g., uncontrolled diabetes, active infection, and active Charcot arthropathy of the ulcer extremity, vasculitis or continued tobacco smoking without physician attempt to effect smoking cessation)
        ii. known hypersensitivity to any component of the specific skin substitute graft (e.g., allergy to avian, bovine, porcine, equine products).
    - Repeat use of surgical preparation services (CPT codes 15002, 15003, 15004, and 15005) in conjunction with skin substitute application codes will be considered not reasonable and necessary. It is expected that each wound will require the use of appropriate wound preparation code at least once at initiation of care prior to placement of the skin substitute graft.
    - Re-treatment within < 1 year of any given course of skin substitute treatment for a venous stasis ulcer or (diabetic) neuropathic foot ulcer is considered treatment failure and does not meet reasonable and necessary criteria for re-treatment of that ulcer with a skin substitute procedure.
3. Autologous Platelet Rich Plasma (PRP) systems used in the treatment of Chronic Non-Healing Wounds is not considered investigational. (See also CMS National Coverage Determination [NCD] for Blood-Derived Products for Chronic Non-Healing Wounds)

Revision History

Oct. 12, 2018 — changed guideline title from “Application of Bioengineered Skin Substitutes to Lower Extremity Chronic Non-Healing Wounds” to “Application of Bioengineered Skin Substitutes” to convey that positive coverage is not confined to lower extremities. Added “burns” to positive coverage statement listing ulcers and wounds.

Applicable Procedure Codes

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 part thereof, 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
15050	Pinch graft, single or multiple, to cover small ulcer, tip of digit, or other minimal open area (except on face), up to defect size 2 cm diameter
15271	Application of skin substitute graft to trunk, arms, legs, total wound surface area up to 100 sq cm; first 25 sq cm or less wound surface area
15272	Application of skin substitute graft to trunk, arms, legs, total wound surface area up to 100 sq cm; each additional 25 sq cm wound surface area, or part thereof (List separately in addition to code for primary procedure)
15273	Application of skin substitute graft to trunk, arms, legs, total wound surface area greater than or equal to 100 sq cm; first 100 sq cm wound surface area, or 1% of body area of infants and children
15274	Application of skin substitute graft to trunk, arms, legs, total wound surface area greater than or equal to 100 sq cm; each additional 100 sq cm wound surface area, or part thereof, or each additional 1% of body area of infants and children, or part thereof (List separately in addition to code for primary procedure)
15275	Application of skin substitute graft to face, scalp, eyelids, mouth, neck, ears, orbits, genitalia, hands, feet, and/or multiple digits, total wound surface area up to 100 sq cm; first 25 sq cm or less wound surface area
15276	Application of skin substitute graft to face, scalp, eyelids, mouth, neck, ears, orbits, genitalia, hands, feet, and/or multiple digits, total wound surface area up to 100 sq cm; each additional 25 sq cm wound surface area, or part thereof (List separately in addition to code for primary procedure)
15277	Application of skin substitute graft to face, scalp, eyelids, mouth, neck, ears, orbits, genitalia, hands, feet, and/or multiple digits, total wound surface area greater than or equal to 100 sq cm; first 100 sq cm wound surface area, or 1% of body area of infants and children
15278	Application of skin substitute graft to face, scalp, eyelids, mouth, neck, ears, orbits, genitalia, hands, feet, and/or multiple digits, total wound surface area greater than or equal to 100 sq cm; each additional 100 sq cm wound surface area, or part thereof, or each additional 1% of body area of infants and children, or part thereof (List separately in addition to code for primary procedure)
A2003	Bio-connekt wound matrix, per square centimeter
Q4100	Skin substitute, not otherwise specified
Q4101	Apligraf, per sq cm
Q4102	Oasis wound matrix, per sq cm
Q4103	Oasis burn matrix, per sq cm
Q4104	Integra bilayer matrix wound dressing (BMWD), per sq cm
Q4105	Integra dermal regeneration template (DRT) or Integra Omnigraft dermal regeneration matrix, per sq cm
Q4106	Dermagraft, per sq cm
Q4107	GRAFTJACKET, per sq cm

Q4108	Integra matrix, per sq cm
Q4110	PriMatrix, per sq cm
Q4111	GammaGraft, per sq cm
Q4115	AlloSkin, per sq cm
Q4117	HYALOMATRIX, per sq cm
Q4118	MatriStem micromatrix, 1 mg
Q4121	TheraSkin, per sq cm
Q4122	DermACELL, per sq cm
Q4123	AlloSkin RT, per sq cm
Q4124	OASIS ultra tri-layer wound matrix, per sq cm
Q4126	MemoDerm, DermaSpan, TranZgraft or IntéguPly, per sq cm
Q4127	Talymed, per sq cm
Q4128	FlexHD, or AllopatchHD, per sq cm (revised: 10/1/2022)
Q4130	Strattice TM, per sq cm
Q4132	Grafix core and grafixpl core, per square centimeter
Q4133	Grafix prime and grafixpl prime, per square centimeter
Q4134	HMatrix, per sq cm
Q4135	Mediskin, per sq cm
Q4136	E-Z Derm, per sq cm
Q4137	AmnioExcel or BioDExCel, per sq cm
Q4138	BioDFence DryFlex, per sq cm
Q4140	BioDFence, per sq cm
Q4141	AlloSkin AC, per sq cm
Q4146	Tensix, per sq cm
Q4147	Architect, Architect PX, or Architect FX, extracellular matrix, per sq cm
Q4148	Neox cord 1k, neox cord rt, or clarix cord 1k, per square centimeter
Q4151	AmnioBand or Guardian, per sq cm
Q4152	DermaPure, per sq cm
Q4153	Dermavest and Plurivest, per sq cm
Q4154	Biovance, per sq cm
Q4155	Neox Flo or Clarix Flo 1 mg
Q4156	Neox 100 or clarix 100, per square centimeter
Q4157	Revitalon, per sq cm
Q4158	Kerecis omega3, per square centimeter
Q4159	Affinity, per sq cm
Q4160	Nushield, per sq cm
Q4161	Bio-ConneKt wound matrix, per sq cm
Q4163	Woundex, bioskin, per square centimeter

Q4164	Helicoll, per sq cm
Q4165	Keramatrix, per sq cm
Q4166	Cytal, per sq cm
Q4169	Artacent wound, per sq cm
Q4170	Cygnus, per sq cm
Q4173	PalinGen or PalinGen XPlus, per sq cm
Q4174	PalinGen or ProMatrX, 0.36 mg per 0.25 cc
Q4175	Miroderm, per sq cm
Q4176	Neopatch, per square centimeter
Q4177	Floweramnioflo, 0.1 cc
Q4178	Floweramniopatch, per square centimeter
Q4179	Flowerderm, per square centimeter
Q4180	Revita, per square centimeter
Q4181	Amnio wound, per square centimeter
Q4182	Transcyte, per square centimeter
Q4183	Surgigraft, per sq cm
Q4186	Epifix, per sq cm
Q4187	Epicord, per sq cm
Q4188	AmnioArmor, per sq cm
Q4189	Artacent AC, 1 mg
Q4190	Artacent AC, per sq cm
Q4195	PuraPly, per sq cm
Q4196	PuraPly AM, per sq cm
Q4197	PuraPly XT, per sq cm
Q4203	Derma-Gide, per sq cm
Q4240	CoreCyte, for topical use only, per 0.5 cc
Q4246	CoreText or ProText, per cc

Applicable Diagnosis Codes

E10.52	Type 1 diabetes mellitus with diabetic peripheral angiopathy with gangrene
E10.621	Type 1 diabetes mellitus with foot ulcer
E10.622	Type 1 diabetes mellitus with other skin ulcer
E11.10	Type 2 diabetes mellitus with ketoacidosis without coma
E11.52	Type 2 diabetes mellitus with diabetic peripheral angiopathy with gangrene
E11.621	Type 2 diabetes mellitus with foot ulcer
E11.622	Type 2 diabetes mellitus with other skin ulcer
E13.52	Other specified diabetes mellitus with diabetic peripheral angiopathy with gangrene
E13.621	Other specified diabetes mellitus with foot ulcer

E13.622	Other specified diabetes mellitus with other skin ulcer
I70.231	Atherosclerosis of native arteries of right leg with ulceration of thigh
I70.232	Atherosclerosis of native arteries of right leg with ulceration of calf
I70.233	Atherosclerosis of native arteries of right leg with ulceration of ankle
I70.234	Atherosclerosis of native arteries of right leg with ulceration of heel and midfoot
I70.235	Atherosclerosis of native arteries of right leg with ulceration of other part of foot
I70.238	Atherosclerosis of native arteries of right leg with ulceration of other part of lower right leg
I70.241	Atherosclerosis of native arteries of left leg with ulceration of thigh
I70.242	Atherosclerosis of native arteries of left leg with ulceration of calf
I70.243	Atherosclerosis of native arteries of left leg with ulceration of ankle
I70.244	Atherosclerosis of native arteries of left leg with ulceration of heel and midfoot
I70.245	Atherosclerosis of native arteries of left leg with ulceration of other part of foot
I70.248	Atherosclerosis of native arteries of left leg with ulceration of other part of lower left leg
I70.261	Atherosclerosis of native arteries of extremities with gangrene, right leg
I70.262	Atherosclerosis of native arteries of extremities with gangrene, left leg
I70.263	Atherosclerosis of native arteries of extremities with gangrene, bilateral legs
I70.291	Other atherosclerosis of native arteries of extremities, right leg
I70.292	Other atherosclerosis of native arteries of extremities, left leg
I70.293	Other atherosclerosis of native arteries of extremities, bilateral legs
I70.331	Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of thigh
I70.332	Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of calf
I70.333	Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of ankle
I70.334	Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of heel and midfoot
I70.335	Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of other part of foot
I70.338	Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of other part of lower leg
I70.341	Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of thigh
I70.342	Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of calf
I70.343	Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of ankle
I70.344	Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of heel and midfoot
I70.345	Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of other part of foot
I70.348	Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of other part of lower leg
I70.361	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with gangrene, right leg
I70.362	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with gangrene, left leg
I70.363	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with gangrene, bilateral legs
I83.011	Varicose veins of right lower extremity with ulcer of thigh
I83.012	Varicose veins of right lower extremity with ulcer of calf
I83.013	Varicose veins of right lower extremity with ulcer of ankle
I83.014	Varicose veins of right lower extremity with ulcer of heel and midfoot

I83.015	Varicose veins of right lower extremity with ulcer other part of foot
I83.018	Varicose veins of right lower extremity with ulcer other part of lower leg
I83.021	Varicose veins of left lower extremity with ulcer of thigh
I83.022	Varicose veins of left lower extremity with ulcer of calf
I83.023	Varicose veins of left lower extremity with ulcer of ankle
I83.024	Varicose veins of left lower extremity with ulcer of heel and midfoot
I83.025	Varicose veins of left lower extremity with ulcer other part of foot
I83.028	Varicose veins of left lower extremity with ulcer other part of lower leg
I83.211	Varicose veins of right lower extremity with both ulcer of thigh and inflammation
I83.212	Varicose veins of right lower extremity with both ulcer of calf and inflammation
I83.213	Varicose veins of right lower extremity with both ulcer of ankle and inflammation
I83.214	Varicose veins of right lower extremity with both ulcer of heel and midfoot and inflammation
I83.215	Varicose veins of right lower extremity with both ulcer other part of foot and inflammation
I83.218	Varicose veins of right lower extremity with both ulcer of other part of lower extremity and inflammation
I83.221	Varicose veins of left lower extremity with both ulcer of thigh and inflammation
I83.222	Varicose veins of left lower extremity with both ulcer of calf and inflammation
I83.223	Varicose veins of left lower extremity with both ulcer of ankle and inflammation
I83.224	Varicose veins of left lower extremity with both ulcer of heel and midfoot and inflammation
I83.225	Varicose veins of left lower extremity with both ulcer other part of foot and inflammation
I83.228	Varicose veins of left lower extremity with both ulcer of other part of lower extremity and inflammation
I87.011	Postthrombotic syndrome with ulcer of right lower extremity
I87.012	Postthrombotic syndrome with ulcer of left lower extremity
I87.013	Postthrombotic syndrome with ulcer of bilateral lower extremity
I87.031	Postthrombotic syndrome with ulcer and inflammation of right lower extremity
I87.032	Postthrombotic syndrome with ulcer and inflammation of left lower extremity
I87.033	Postthrombotic syndrome with ulcer and inflammation of bilateral lower extremity
I87.311	Chronic venous hypertension (idiopathic) with ulcer of right lower extremity
I87.312	Chronic venous hypertension (idiopathic) with ulcer of left lower extremity
I87.313	Chronic venous hypertension (idiopathic) with ulcer of bilateral lower extremity
I87.331	Chronic venous hypertension (idiopathic) with ulcer and inflammation of right lower extremity
I87.332	Chronic venous hypertension (idiopathic) with ulcer and inflammation of left lower extremity
I87.333	Chronic venous hypertension (idiopathic) with ulcer and inflammation of bilateral lower extremity
L89.152	Pressure ulcer of sacral region, stage 2
L89.153	Pressure ulcer of sacral region, stage 3
L89.154	Pressure ulcer of sacral region, stage 4
L89.212	Pressure ulcer of right hip, stage 2
L89.213	Pressure ulcer of right hip, stage 3
L89.214	Pressure ulcer of right hip, stage 4

L89.222	Pressure ulcer of left hip, stage 2
L89.223	Pressure ulcer of left hip, stage 3
L89.224	Pressure ulcer of left hip, stage 4
L89.312	Pressure ulcer of right buttock, stage 2
L89.313	Pressure ulcer of right buttock, stage 3
L89.314	Pressure ulcer of right buttock, stage 4
L89.322	Pressure ulcer of left buttock, stage 2
L89.323	Pressure ulcer of left buttock, stage 3
L89.324	Pressure ulcer of left buttock, stage 4
L89.42	Pressure ulcer of contiguous site of back, buttock and hip, stage 2
L89.43	Pressure ulcer of contiguous site of back, buttock and hip, stage 3
L89.44	Pressure ulcer of contiguous site of back, buttock and hip, stage 4
L89.512	Pressure ulcer of right ankle, stage 2
L89.513	Pressure ulcer of right ankle, stage 3
L89.514	Pressure ulcer of right ankle, stage 4
L89.522	Pressure ulcer of left ankle, stage 2
L89.523	Pressure ulcer of left ankle, stage 3
L89.524	Pressure ulcer of left ankle, stage 4
L89.612	Pressure ulcer of right heel, stage 2
L89.613	Pressure ulcer of right heel, stage 3
L89.614	Pressure ulcer of right heel, stage 4
L89.622	Pressure ulcer of left heel, stage 2
L89.623	Pressure ulcer of left heel, stage 3
L89.624	Pressure ulcer of left heel, stage 4
L89.892	Pressure ulcer of other site, stage 2
L89.893	Pressure ulcer of other site, stage 3
L89.894	Pressure ulcer of other site, stage 4
L97.111	Non-pressure chronic ulcer of right thigh limited to breakdown of skin
L97.112	Non-pressure chronic ulcer of right thigh with fat layer exposed
L97.113	Non-pressure chronic ulcer of right thigh with necrosis of muscle
L97.114	Non-pressure chronic ulcer of right thigh with necrosis of bone
L97.115	Non-pressure chronic ulcer of right thigh with muscle involvement without evidence of necrosis
L97.116	Non-pressure chronic ulcer of right thigh with bone involvement without evidence of necrosis
L97.118	Non-pressure chronic ulcer of right thigh with other specified severity
L97.121	Non-pressure chronic ulcer of left thigh limited to breakdown of skin
L97.122	Non-pressure chronic ulcer of left thigh with fat layer exposed
L97.123	Non-pressure chronic ulcer of left thigh with necrosis of muscle
L97.124	Non-pressure chronic ulcer of left thigh with necrosis of bone

L97.125	Non-pressure chronic ulcer of left thigh with muscle involvement without evidence of necrosis
L97.126	Non-pressure chronic ulcer of left thigh with bone involvement without evidence of necrosis
L97.128	Non-pressure chronic ulcer of left thigh with other specified severity
L97.211	Non-pressure chronic ulcer of right calf limited to breakdown of skin
L97.212	Non-pressure chronic ulcer of right calf with fat layer exposed
L97.213	Non-pressure chronic ulcer of right calf with necrosis of muscle
L97.214	Non-pressure chronic ulcer of right calf with necrosis of bone
L97.215	Non-pressure chronic ulcer of right calf with muscle involvement without evidence of necrosis
L97.216	Non-pressure chronic ulcer of right calf with bone involvement without evidence of necrosis
L97.218	Non-pressure chronic ulcer of right calf with other specified severity
L97.221	Non-pressure chronic ulcer of left calf limited to breakdown of skin
L97.222	Non-pressure chronic ulcer of left calf with fat layer exposed
L97.223	Non-pressure chronic ulcer of left calf with necrosis of muscle
L97.224	Non-pressure chronic ulcer of left calf with necrosis of bone
L97.225	Non-pressure chronic ulcer of left calf with muscle involvement without evidence of necrosis
L97.226	Non-pressure chronic ulcer of left calf with bone involvement without evidence of necrosis
L97.228	Non-pressure chronic ulcer of left calf with other specified severity
L97.311	Non-pressure chronic ulcer of right ankle limited to breakdown of skin
L97.312	Non-pressure chronic ulcer of right ankle with fat layer exposed
L97.313	Non-pressure chronic ulcer of right ankle with necrosis of muscle
L97.314	Non-pressure chronic ulcer of right ankle with necrosis of bone
L97.315	Non-pressure chronic ulcer of right ankle with muscle involvement without evidence of necrosis
L97.316	Non-pressure chronic ulcer of right ankle with bone involvement without evidence of necrosis
L97.318	Non-pressure chronic ulcer of right ankle with other specified severity
L97.321	Non-pressure chronic ulcer of left ankle limited to breakdown of skin
L97.322	Non-pressure chronic ulcer of left ankle with fat layer exposed
L97.323	Non-pressure chronic ulcer of left ankle with necrosis of muscle
L97.324	Non-pressure chronic ulcer of left ankle with necrosis of bone
L97.325	Non-pressure chronic ulcer of left ankle with muscle involvement without evidence of necrosis
L97.326	Non-pressure chronic ulcer of left ankle with bone involvement without evidence of necrosis
L97.328	Non-pressure chronic ulcer of left ankle with other specified severity
L97.411	Non-pressure chronic ulcer of right heel and midfoot limited to breakdown of skin
L97.412	Non-pressure chronic ulcer of right heel and midfoot with fat layer exposed
L97.413	Non-pressure chronic ulcer of right heel and midfoot with necrosis of muscle
L97.414	Non-pressure chronic ulcer of right heel and midfoot with necrosis of bone
L97.415	Non-pressure chronic ulcer of right heel and midfoot with muscle involvement without evidence of necrosis
L97.416	Non-pressure chronic ulcer of right heel and midfoot with bone involvement without evidence of necrosis
L97.418	Non-pressure chronic ulcer of right heel and midfoot with other specified severity

L97.421	Non-pressure chronic ulcer of left heel and midfoot limited to breakdown of skin
L97.422	Non-pressure chronic ulcer of left heel and midfoot with fat layer exposed
L97.423	Non-pressure chronic ulcer of left heel and midfoot with necrosis of muscle
L97.424	Non-pressure chronic ulcer of left heel and midfoot with necrosis of bone
L97.425	Non-pressure chronic ulcer of left heel and midfoot with muscle involvement without evidence of necrosis
L97.426	Non-pressure chronic ulcer of left heel and midfoot with bone involvement without evidence of necrosis
L97.428	Non-pressure chronic ulcer of left heel and midfoot with other specified severity
L97.511	Non-pressure chronic ulcer of other part of right foot limited to breakdown of skin
L97.512	Non-pressure chronic ulcer of other part of right foot with fat layer exposed
L97.513	Non-pressure chronic ulcer of other part of right foot with necrosis of muscle
L97.514	Non-pressure chronic ulcer of other part of right foot with necrosis of bone
L97.515	Non-pressure chronic ulcer of other part of right foot with muscle involvement without evidence of necrosis
L97.516	Non-pressure chronic ulcer of other part of right foot with bone involvement without evidence of necrosis
L97.518	Non-pressure chronic ulcer of other part of right foot with other specified severity
L97.521	Non-pressure chronic ulcer of other part of left foot limited to breakdown of skin
L97.522	Non-pressure chronic ulcer of other part of left foot with fat layer exposed
L97.523	Non-pressure chronic ulcer of other part of left foot with necrosis of muscle
L97.524	Non-pressure chronic ulcer of other part of left foot with necrosis of bone
L97.525	Non-pressure chronic ulcer of other part of left foot with muscle involvement without evidence of necrosis
L97.526	Non-pressure chronic ulcer of other part of left foot with bone involvement without evidence of necrosis
L97.528	Non-pressure chronic ulcer of other part of left foot with other specified severity
L97.811	Non-pressure chronic ulcer of other part of right lower leg limited to breakdown of skin
L97.812	Non-pressure chronic ulcer of other part of right lower leg with fat layer exposed
L97.813	Non-pressure chronic ulcer of other part of right lower leg with necrosis of muscle
L97.814	Non-pressure chronic ulcer of other part of right lower leg with necrosis of bone
L97.815	Non-pressure chronic ulcer of other part of right lower leg with muscle involvement without evidence of necrosis
L97.816	Non-pressure chronic ulcer of other part of right lower leg with bone involvement without evidence of necrosis
L97.818	Non-pressure chronic ulcer of other part of right lower leg with other specified severity
L97.821	Non-pressure chronic ulcer of other part of left lower leg limited to breakdown of skin
L97.822	Non-pressure chronic ulcer of other part of left lower leg with fat layer exposed
L97.823	Non-pressure chronic ulcer of other part of left lower leg with necrosis of muscle
L97.824	Non-pressure chronic ulcer of other part of left lower leg with necrosis of bone
L97.825	Non-pressure chronic ulcer of other part of left lower leg with muscle involvement without evidence of necrosis
L97.826	Non-pressure chronic ulcer of other part of left lower leg with bone involvement without evidence of necrosis
L97.828	Non-pressure chronic ulcer of other part of left lower leg with other specified severity
L97.912	Non-pressure chronic ulcer of unspecified part of right lower leg with fat layer exposed
L97.913	Non-pressure chronic ulcer of unspecified part of right lower leg with necrosis of muscle
L97.914	Non-pressure chronic ulcer of unspecified part of right lower leg with necrosis of bone

L97.915	Non-pressure chronic ulcer of unspecified part of right lower leg with muscle involvement without evidence of necrosis
L97.916	Non-pressure chronic ulcer of unspecified part of right lower leg with bone involvement without evidence of necrosis
L97.918	Non-pressure chronic ulcer of unspecified part of right lower leg with other specified severity
L97.922	Non-pressure chronic ulcer of unspecified part of left lower leg with fat layer exposed
L97.923	Non-pressure chronic ulcer of unspecified part of left lower leg with necrosis of muscle
L97.924	Non-pressure chronic ulcer of unspecified part of left lower leg with necrosis of bone
L97.925	Non-pressure chronic ulcer of unspecified part of left lower leg with muscle involvement without evidence of necrosis
L97.926	Non-pressure chronic ulcer of unspecified part of left lower leg with bone involvement without evidence of necrosis
L97.928	Non-pressure chronic ulcer of unspecified part of left lower leg with other specified severity
L98.415	Non-pressure chronic ulcer of buttock with muscle involvement without evidence of necrosis
L98.416	Non-pressure chronic ulcer of buttock with bone involvement without evidence of necrosis
L98.418	Non-pressure chronic ulcer of buttock with other specified severity
T20.20XA	Burn of second degree of head, face, and neck, unspecified site, initial encounter
T20.20XD	Burn of second degree of head, face, and neck, unspecified site, subsequent encounter
T20.20XS	Burn of second degree of head, face, and neck, unspecified site, sequela
T20.23XA	Burn of second degree of chin, initial encounter
T20.23XD	Burn of second degree of chin, subsequent encounter
T20.23XS	Burn of second degree of chin, sequela
T20.24XA	Burn of second degree of nose (septum), initial encounter
T20.24XD	Burn of second degree of nose (septum), subsequent encounter
T20.24XS	Burn of second degree of nose (septum), sequela
T20.25XA	Burn of second degree of scalp [any part], initial encounter
T20.25XD	Burn of second degree of scalp [any part], subsequent encounter
T20.25XS	Burn of second degree of scalp [any part], sequela
T20.26XA	Burn of second degree of forehead and cheek, initial encounter
T20.26XD	Burn of second degree of forehead and cheek, subsequent encounter
T20.26XS	Burn of second degree of neck, sequela
T20.27XA	Burn of second degree of neck, initial encounter
T20.27XD	Burn of second degree of neck, subsequent encounter
T20.27XS	Burn of second degree of neck, sequela
T20.29XA	Burn of second degree of multiple sites of head, face, and neck, initial encounter
T20.29XD	Burn of second degree of multiple sites of head, face, and neck, subsequent encounter
T20.29XS	Burn of second degree of multiple sites of head, face, and neck, sequela
T21.20XA	Burn of second degree of trunk, unspecified site, initial encounter
T21.20XD	Burn of second degree of trunk, unspecified site, subsequent encounter
T21.20XS	Burn of second degree of trunk, unspecified site, sequela
T21.21XA	Burn of second degree of chest wall, initial encounter
T21.21XD	Burn of second degree of chest wall, subsequent encounter

T21.21XS	Burn of second degree of chest wall, sequela
T21.22XA	Burn of second degree of abdominal wall, initial encounter
T21.22XD	Burn of second degree of abdominal wall, subsequent encounter
T21.22XS	Burn of second degree of abdominal wall, sequela
T21.23XA	Burn of second degree of upper back, initial encounter
T21.23XD	Burn of second degree of upper back, subsequent encounter
T21.23XS	Burn of second degree of upper back, sequela
T21.24XA	Burn of second degree of lower back, initial encounter
T21.24XD	Burn of second degree of lower back, subsequent encounter
T21.24XS	Burn of second degree of lower back, sequela
T21.25XA	Burn of second degree of buttock, initial encounter
T21.25XD	Burn of second degree of buttock, subsequent encounter
T21.25XS	Burn of second degree of buttock, sequela
T21.29XA	Burn of second degree of other site of trunk, initial encounter
T21.29XD	Burn of second degree of other site of trunk, subsequent encounter
T21.29XS	Burn of second degree of other site of trunk, sequela
T22.00XA	Burn of unspecified degree of shoulder and upper limb, except wrist and hand, unspecified site, initial encounter
T22.00XD	Burn of unspecified degree of shoulder and upper limb, except wrist and hand, unspecified site, subsequent encounter
T22.00XS	Burn of unspecified degree of shoulder and upper limb, except wrist and hand, unspecified site, sequela
T22.20XA	Burn of second degree of shoulder and upper limb, except wrist and hand, unspecified site, initial encounter
T22.20XD	Burn of second degree of shoulder and upper limb, except wrist and hand, unspecified site, subsequent encounter
T22.20XS	Burn of second degree of shoulder and upper limb, except wrist and hand, unspecified site, sequela
T22.211A	Burn of second degree of right forearm, initial encounter
T22.211D	Burn of second degree of right forearm, subsequent encounter
T22.211S	Burn of second degree of right forearm, sequela
T22.212A	Burn of second degree of left forearm, initial encounter
T22.212D	Burn of second degree of left forearm, subsequent encounter
T22.212S	Burn of second degree of left forearm, sequela
T22.219A	Burn of second degree of unspecified forearm, initial encounter
T22.219D	Burn of second degree of unspecified forearm, subsequent encounter
T22.219S	Burn of second degree of unspecified forearm, sequela
T22.221A	Burn of second degree of right elbow, initial encounter
T22.221D	Burn of second degree of right elbow, subsequent encounter
T22.221S	Burn of second degree of right elbow, sequela
T22.222A	Burn of second degree of left elbow, initial encounter
T22.222D	Burn of second degree of left elbow, subsequent encounter
T22.222S	Burn of second degree of left elbow, sequela
T22.229A	Burn of second degree of unspecified elbow, initial encounter

T22.229D	Burn of second degree of unspecified elbow, subsequent encounter
T22.229S	Burn of second degree of unspecified elbow, sequela
T22.231A	Burn of second degree of right upper arm, initial encounter
T22.231D	Burn of second degree of right upper arm, subsequent encounter
T22.231S	Burn of second degree of right upper arm, sequela
T22.232A	Burn of second degree of left upper arm, initial encounter
T22.232D	Burn of second degree of left upper arm, subsequent encounter
T22.232S	Burn of second degree of left upper arm, sequela
T22.239A	Burn of second degree of unspecified upper arm, initial encounter
T22.239D	Burn of second degree of unspecified upper arm, subsequent encounter
T22.239S	Burn of second degree of unspecified upper arm, sequela
T22.241A	Burn of second degree of right axilla, initial encounter
T22.241D	Burn of second degree of right axilla, subsequent encounter
T22.241S	Burn of second degree of right axilla, sequela
T22.242A	Burn of second degree of left axilla, initial encounter
T22.242D	Burn of second degree of left axilla, subsequent encounter
T22.242S	Burn of second degree of left axilla, sequela
T22.249A	Burn of second degree of unspecified axilla, initial encounter
T22.249D	Burn of second degree of unspecified axilla, subsequent encounter
T22.249S	Burn of second degree of unspecified axilla, sequela
T22.251A	Burn of second degree of right shoulder, initial encounter
T22.251D	Burn of second degree of right shoulder, subsequent encounter
T22.251S	Burn of second degree of right shoulder, sequela
T22.252A	Burn of second degree of left shoulder, initial encounter
T22.252D	Burn of second degree of left shoulder, subsequent encounter
T22.252S	Burn of second degree of left shoulder, sequela
T22.259A	Burn of second degree of unspecified shoulder, initial encounter
T22.259D	Burn of second degree of unspecified shoulder, subsequent encounter
T22.259S	Burn of second degree of unspecified shoulder, sequela
T22.261A	Burn of second degree of right scapular region, initial encounter
T22.261D	Burn of second degree of right scapular region, subsequent encounter
T22.261S	Burn of second degree of right scapular region, sequela
T22.262A	Burn of second degree of left scapular region, initial encounter
T22.262D	Burn of second degree of left scapular region, subsequent encounter
T22.262S	Burn of second degree of left scapular region, sequela
T22.269A	Burn of second degree of unspecified scapular region, initial encounter
T22.269D	Burn of second degree of unspecified scapular region, subsequent encounter
T22.269S	Burn of second degree of unspecified scapular region, sequela

T22.291A	Burn of second degree of multiple sites of right shoulder and upper limb, except wrist and hand, initial encounter
T22.291D	Burn of second degree of multiple sites of right shoulder and upper limb, except wrist and hand, subsequent encounter
T22.291S	Burn of second degree of multiple sites of right shoulder and upper limb, except wrist and hand, sequela
T22.292A	Burn of second degree of multiple sites of left shoulder and upper limb, except wrist and hand, initial encounter
T22.292D	Burn of second degree of multiple sites of left shoulder and upper limb, except wrist and hand, subsequent encounter
T22.292S	Burn of second degree of multiple sites of left shoulder and upper limb, except wrist and hand, sequela
T22.299A	Burn of second degree of multiple sites of unspecified shoulder and upper limb, except wrist and hand, initial encounter
T22.299D	Burn of second degree of multiple sites of unspecified shoulder and upper limb, except wrist and hand, subsequent encounter
T22.299S	Burn of second degree of multiple sites of unspecified shoulder and upper limb, except wrist and hand, sequela
T23.201A	Burn of second degree of right hand, unspecified site, initial encounter
T23.201D	Burn of second degree of right hand, unspecified site, subsequent encounter
T23.201S	Burn of second degree of right hand, unspecified site, sequela
T23.202A	Burn of second degree of left hand, unspecified site, initial encounter
T23.202D	Burn of second degree of left hand, unspecified site, subsequent encounter
T23.202S	Burn of second degree of left hand, unspecified site, sequela
T23.209A	Burn of second degree of unspecified hand, unspecified site, initial encounter
T23.209D	Burn of second degree of unspecified hand, unspecified site, subsequent encounter
T23.209S	Burn of second degree of unspecified hand, unspecified site, sequela
T23.211A	Burn of second degree of right thumb (nail), initial encounter
T23.211D	Burn of second degree of right thumb (nail), subsequent encounter
T23.211S	Burn of second degree of right thumb (nail), sequela
T23.212A	Burn of second degree of left thumb (nail), initial encounter
T23.212D	Burn of second degree of left thumb (nail), subsequent encounter
T23.212S	Burn of second degree of left thumb (nail), sequela
T23.219A	Burn of second degree of unspecified thumb (nail), initial encounter
T23.219D	Burn of second degree of unspecified thumb (nail), subsequent encounter
T23.219S	Burn of second degree of unspecified thumb (nail), sequela
T23.221A	Burn of second degree of single right finger (nail) except thumb, initial encounter
T23.221D	Burn of second degree of single right finger (nail) except thumb, subsequent encounter
T23.221S	Burn of second degree of single right finger (nail) except thumb, sequela
T23.222A	Burn of second degree of single left finger (nail) except thumb, initial encounter
T23.222D	Burn of second degree of single left finger (nail) except thumb, subsequent encounter
T23.222S	Burn of second degree of single left finger (nail) except thumb, sequela
T23.229A	Burn of second degree of unspecified single finger (nail) except thumb, initial encounter
T23.229D	Burn of second degree of unspecified single finger (nail) except thumb, subsequent encounter
T23.229S	Burn of second degree of unspecified single finger (nail) except thumb, sequela
T23.231A	Burn of second degree of multiple right fingers (nail), not including thumb, initial encounter

T23.231D	Burn of second degree of multiple right fingers (nail), not including thumb, subsequent encounter
T23.231S	Burn of second degree of multiple right fingers (nail), not including thumb, sequela
T23.232A	Burn of second degree of multiple left fingers (nail), not including thumb, initial encounter
T23.232D	Burn of second degree of multiple left fingers (nail), not including thumb, subsequent encounter
T23.232S	Burn of second degree of multiple left fingers (nail), not including thumb, sequela
T23.239A	Burn of second degree of unspecified multiple fingers (nail), not including thumb, initial encounter
T23.239D	Burn of second degree of unspecified multiple fingers (nail), not including thumb, subsequent encounter
T23.241A	Burn of second degree of multiple right fingers (nail), including thumb, initial encounter
T23.241D	Burn of second degree of multiple right fingers (nail), including thumb, subsequent encounter
T23.241S	Burn of second degree of multiple right fingers (nail), including thumb, sequela
T23.242A	Burn of second degree of multiple left fingers (nail), including thumb, initial encounter
T23.242D	Burn of second degree of multiple left fingers (nail), including thumb, subsequent encounter
T23.242S	Burn of second degree of multiple left fingers (nail), including thumb, sequela
T23.249A	Burn of second degree of unspecified multiple fingers (nail), including thumb, initial encounter
T23.249D	Burn of second degree of unspecified multiple fingers (nail), including thumb, subsequent encounter
T23.249S	Burn of second degree of unspecified multiple fingers (nail), including thumb, sequela
T23.251A	Burn of second degree of right palm, initial encounter
T23.251D	Burn of second degree of right palm, subsequent encounter
T23.251S	Burn of second degree of right palm, sequela
T23.252A	Burn of second degree of left palm, initial encounter
T23.252D	Burn of second degree of left palm, subsequent encounter
T23.252S	Burn of second degree of left palm, sequela
T23.259A	Burn of second degree of unspecified palm, initial encounter
T23.259D	Burn of second degree of unspecified palm, subsequent encounter
T23.259S	Burn of second degree of unspecified palm, sequela
T23.261A	Burn of second degree of back of right hand, initial encounter
T23.261D	Burn of second degree of back of right hand, subsequent encounter
T23.261S	Burn of second degree of back of right hand, sequela
T23.262A	Burn of second degree of back of left hand, initial encounter
T23.262D	Burn of second degree of back of left hand, subsequent encounter
T23.262S	Burn of second degree of back of left hand, sequela
T23.269A	Burn of second degree of back of unspecified hand, initial encounter
T23.269D	Burn of second degree of back of unspecified hand, subsequent encounter
T23.269S	Burn of second degree of back of unspecified hand, sequela
T23.271A	Burn of second degree of right wrist, initial encounter
T23.271D	Burn of second degree of right wrist, subsequent encounter
T23.271S	Burn of second degree of right wrist, sequela
T23.272A	Burn of second degree of left wrist, initial encounter

T23.272D	Burn of second degree of left wrist, subsequent encounter
T23.272S	Burn of second degree of left wrist, sequela
T23.279A	Burn of second degree of unspecified wrist, initial encounter
T23.279D	Burn of second degree of unspecified wrist, subsequent encounter
T23.279S	Burn of second degree of unspecified wrist, sequela
T23.291A	Burn of second degree of multiple sites of right wrist and hand, initial encounter
T23.292A	Burn of second degree of multiple sites of left wrist and hand, initial encounter
T23.292D	Burn of second degree of multiple sites of left wrist and hand, subsequent encounter
T23.292S	Burn of second degree of multiple sites of left wrist and hand, sequela
T23.299A	Burn of second degree of multiple sites of unspecified wrist and hand, initial encounter
T23.299D	Burn of second degree of multiple sites of unspecified wrist and hand, subsequent encounter
T23.299S	Burn of second degree of multiple sites of unspecified wrist and hand, sequela
T25.211A	Burn of second degree of right ankle, initial encounter
T25.211D	Burn of second degree of right ankle, subsequent encounter
T25.211S	Burn of second degree of right ankle, sequela
T25.212A	Burn of second degree of left ankle, initial encounter
T25.212D	Burn of second degree of left ankle, subsequent encounter
T25.212S	Burn of second degree of left ankle, sequela
T25.219A	Burn of second degree of unspecified ankle, initial encounter
T25.219D	Burn of second degree of unspecified ankle, subsequent encounter
T25.219S	Burn of second degree of unspecified ankle, sequela
T25.221A	Burn of second degree of right foot, initial encounter
T25.211D	Burn of second degree of right foot, subsequent encounter
T25.211S	Burn of second degree of right foot, sequela
T25.222A	Burn of second degree of left foot, initial encounter
T25.222D	Burn of second degree of left foot, subsequent encounter
T25.222S	Burn of second degree of left foot, sequela
T25.229A	Burn of second degree of unspecified foot, initial encounter
T25.229D	Burn of second degree of unspecified foot, subsequent encounter
T25.229S	Burn of second degree of unspecified foot, sequela
T25.231A	Burn of second degree of right toe(s) (nail), initial encounter
T25.231D	Burn of second degree of right toe(s) (nail), subsequent encounter
T25.231S	Burn of second degree of right toe(s) (nail), sequela
T25.232A	Burn of second degree of left toe(s) (nail), initial encounter
T25.232D	Burn of second degree of left toe(s) (nail), subsequent encounter
T23.232S	Burn of second degree of left toe(s) (nail), sequela
T25.239A	Burn of second degree of unspecified toe(s) (nail), initial encounter
T25.239D	Burn of second degree of unspecified toe(s) (nail), subsequent encounter

T25.239S	Burn of second degree of unspecified toe(s) (nail), sequela
T25.291A	Burn of second degree of multiple sites of right ankle and foot, initial encounter
T25.291D	Burn of second degree of multiple sites of right ankle and foot, subsequent encounter
T25.291S	Burn of second degree of multiple sites of right ankle and foot, sequela
T25.292A	Burn of second degree of multiple sites of left ankle and foot, initial encounter
T25.292D	Burn of second degree of multiple sites of left ankle and foot, subsequent encounter
T25.292S	Burn of second degree of multiple sites of left ankle and foot, sequela
T25.299A	Burn of second degree of multiple sites of unspecified ankle and foot, initial encounter
T25.299D	Burn of second degree of multiple sites of unspecified ankle and foot, subsequent encounter
T25.299S	Burn of second degree of multiple sites of unspecified ankle and foot, sequela
T20.30XA	Burn of third degree of head, face, and neck, unspecified site, initial encounter
T20.30XD	Burn of third degree of head, face, and neck, unspecified site, subsequent encounter
T20.30XS	Burn of third degree of head, face, and neck, unspecified site, sequela
T20.33XA	Burn of third degree of chin, initial encounter
T20.33XD	Burn of third degree of chin, subsequent encounter
T20.33XS	Burn of third degree of chin, sequela
T20.34XA	Burn of third degree of nose (septum), initial encounter
T20.34XD	Burn of third degree of nose (septum), subsequent encounter
T20.34XS	Burn of third degree of nose (septum), sequela
T20.35XA	Burn of third degree of scalp [any part], initial encounter
T20.35XD	Burn of third degree of scalp [any part], subsequent encounter
T20.35XS	Burn of third degree of scalp [any part], sequela
T20.36XA	Burn of third degree of forehead and cheek, initial encounter
T20.36XD	Burn of third degree of forehead and cheek, subsequent encounter
T20.36XS	Burn of third degree of forehead and cheek, sequela
T20.37XA	Burn of third degree of neck, initial encounter
T20.37XD	Burn of third degree of neck, subsequent encounter
T20.37XS	Burn of third degree of neck, sequela
T20.39XA	Burn of third degree of multiple sites of head, face, and neck, initial encounter
T20.39XD	Burn of third degree of multiple sites of head, face, and neck, subsequent encounter
T20.39XS	Burn of third degree of multiple sites of head, face, and neck, sequela
T21.30XA	Burn of third degree of trunk, unspecified site, initial encounter
T21.30XD	Burn of third degree of trunk, unspecified site, subsequent encounter
T21.30XS	Burn of third degree of trunk, unspecified site, sequela
T21.31XA	Burn of third degree of chest wall, initial encounter
T21.31XD	Burn of third degree of chest wall, subsequent encounter
T21.31XS	Burn of third degree of chest wall, sequela
T21.32XA	Burn of third degree of abdominal wall, initial encounter

T21.32XD	Burn of third degree of abdominal wall, subsequent encounter
T21.32XS	Burn of third degree of abdominal wall, sequela
T21.33XA	Burn of third degree of upper back, initial encounter
T21.33XD	Burn of third degree of upper back, subsequent encounter
T21.33XS	Burn of third degree of upper back, sequela
T21.34XA	Burn of third degree of lower back, initial encounter
T21.34XD	Burn of third degree of lower back, subsequent encounter
T21.34XS	Burn of third degree of lower back, sequela
T21.35.XA	Burn of third degree of buttock, initial encounter
T21.35XD	Burn of third degree of buttock, subsequent encounter
T21.35XS	Burn of third degree of buttock, sequela
T21.39XA	Burn of third degree of other site of trunk, initial encounter
T21.39XD	Burn of third degree of other site of trunk, subsequent encounter
T21.39XS	Burn of third degree of other site of trunk, sequela
T22.30XA	Burn of third degree of shoulder and upper limb, except wrist and hand, unspecified site, initial encounter
T22.30XD	Burn of third degree of shoulder and upper limb, except wrist and hand, unspecified site, subsequent encounter
T22.30XS	Burn of third degree of shoulder and upper limb, except wrist and hand, unspecified site, sequela
T22.311A	Burn of third degree of right forearm, initial encounter
T22.311D	Burn of third degree of right forearm, subsequent encounter
T22.311S	Burn of third degree of right forearm, sequela
T22.312A	Burn of third degree of left forearm, initial encounter
T22.312D	Burn of third degree of left forearm, subsequent encounter
T22.312S	Burn of third degree of left forearm, sequela
T22.319A	Burn of third degree of unspecified forearm, initial encounter
T22.319D	Burn of third degree of unspecified forearm, subsequent encounter
T22.319S	Burn of third degree of unspecified forearm, sequela
T22.321A	Burn of third degree of right elbow, initial encounter
T22.321D	Burn of third degree of right elbow, subsequent encounter
T22.321S	Burn of third degree of right elbow, sequela
T22.322A	Burn of third degree of left elbow, initial encounter
T22.322D	Burn of third degree of left elbow, subsequent encounter
T22.322S	Burn of third degree of left elbow, sequela
T22.329A	Burn of third degree of unspecified elbow, initial encounter
T22.329D	Burn of third degree of unspecified elbow, subsequent encounter
T22.329S	Burn of third degree of unspecified elbow, sequela
T22.331A	Burn of third degree of right upper arm, initial encounter
T22.331D	Burn of third degree of right upper arm, subsequent encounter
T22.331S	Burn of third degree of right upper arm, sequela

T22.332A	Burn of third degree of left upper arm, initial encounter
T22.332D	Burn of third degree of left upper arm, subsequent encounter
T22.332S	Burn of third degree of left upper arm, sequela
T22.339A	Burn of third degree of unspecified upper arm, initial encounter
T22.339D	Burn of third degree of unspecified upper arm, subsequent encounter
T22.339S	Burn of third degree of unspecified upper arm, sequela
T22.341A	Burn of third degree of right axilla, initial encounter
T22.341D	Burn of third degree of right axilla, subsequent encounter
T22.341S	Burn of third degree of right axilla, sequela
T22.342A	Burn of third degree of left axilla, initial encounter
T22.342D	Burn of third degree of left axilla, subsequent encounter
T22.342S	Burn of third degree of left axilla, sequela
T22.349A	Burn of third degree of unspecified axilla, initial encounter
T22.349D	Burn of third degree of unspecified axilla, subsequent encounter
T22.349S	Burn of third degree of unspecified axilla, sequela
T22.351A	Burn of third degree of right shoulder, initial encounter
T22.351D	Burn of third degree of right shoulder, subsequent encounter
T22.351S	Burn of third degree of right shoulder, sequela
T22.352A	Burn of third degree of left shoulder, initial encounter
T22.352D	Burn of third degree of left shoulder, subsequent encounter
T22.352S	Burn of third degree of left shoulder, sequela
T22.359A	Burn of third degree of unspecified shoulder, initial encounter
T22.359D	Burn of third degree of unspecified shoulder, subsequent encounter
T22.359S	Burn of third degree of unspecified shoulder, sequela
T22.361A	Burn of third degree of right scapular region, initial encounter
T22.361D	Burn of third degree of right scapular region, subsequent encounter
T22.361S	Burn of third degree of right scapular region, sequela
T22.362A	Burn of third degree of left scapular region, initial encounter
T22.362D	Burn of third degree of left scapular region, subsequent encounter
T22.362S	Burn of third degree of left scapular region, sequela
T22.369A	Burn of third degree of unspecified scapular region, initial encounter
T22.369D	Burn of third degree of unspecified scapular region, subsequent encounter
T22.369S	Burn of third degree of unspecified scapular region, sequela
T22.391A	Burn of third degree of multiple sites of right shoulder and upper limb, except wrist and hand, initial encounter
T22.391D	Burn of third degree of multiple sites of right shoulder and upper limb, except wrist and hand, subsequent encounter
T22.391S	Burn of third degree of multiple sites of right shoulder and upper limb, except wrist and hand, sequela
T22.392A	Burn of third degree of multiple sites of left shoulder and upper limb, except wrist and hand, initial encounter
T22.392D	Burn of third degree of multiple sites of left shoulder and upper limb, except wrist and hand, subsequent encounter

T22.392S	Burn of third degree of multiple sites of left shoulder and upper limb, except wrist and hand, sequela
T22.399A	Burn of third degree of multiple sites of unspecified shoulder and upper limb, except wrist and hand, initial encounter
T22.399D	Burn of third degree of multiple sites of unspecified shoulder and upper limb, except wrist and hand, subsequent encounter
T22.399S	Burn of third degree of multiple sites of unspecified shoulder and upper limb, except wrist and hand, sequela
T22.301A	Burn of third degree of right hand, unspecified site, initial encounter
T23.301D	Burn of third degree of right hand, unspecified site, subsequent encounter
T23.301S	Burn of third degree of right hand, unspecified site, sequela
T23.302A	Burn of third degree of left hand, unspecified site, initial encounter
T23.302D	Burn of third degree of left hand, unspecified site, subsequent encounter
T23.302S	Burn of third degree of left hand, unspecified site, sequela
T23.309A	Burn of third degree of unspecified hand, unspecified site, initial encounter
T23.309D	Burn of third degree of unspecified hand, unspecified site, subsequent encounter
T23.309S	Burn of third degree of unspecified hand, unspecified site, sequela
T23.311A	Burn of third degree of right thumb (nail), initial encounter
T23.311D	Burn of third degree of right thumb (nail), subsequent encounter
T23.311S	Burn of third degree of right thumb (nail), sequela
T23.312A	Burn of third degree of left thumb (nail), initial encounter
T23.312D	Burn of third degree of left thumb (nail), subsequent encounter
T23.312S	Burn of third degree of left thumb (nail), sequela
T23.319A	Burn of third degree of unspecified thumb (nail), initial encounter
T23.319D	Burn of third degree of unspecified thumb (nail), subsequent encounter
T23.319S	Burn of third degree of unspecified thumb (nail), sequela
T23.321A	Burn of third degree of single right finger (nail) except thumb, initial encounter
T23.321D	Burn of third degree of single right finger (nail) except thumb, subsequent encounter
T23.321S	Burn of third degree of single right finger (nail) except thumb, sequela
T23.322A	Burn of third degree of single left finger (nail) except thumb, initial encounter
T23.322D	Burn of third degree of single left finger (nail) except thumb, subsequent encounter
T23.322S	Burn of third degree of single left finger (nail) except thumb, sequela
T23.329A	Burn of third degree of unspecified single finger (nail) except thumb, initial encounter
T23.329D	Burn of third degree of unspecified single finger (nail) except thumb, subsequent encounter
T23.329S	Burn of third degree of unspecified single finger (nail) except thumb, sequela
T23.331A	Burn of third degree of multiple right fingers (nail), not including thumb, initial encounter
T23.331D	Burn of third degree of multiple right fingers (nail), not including thumb, subsequent encounter
T23.331S	Burn of third degree of multiple right fingers (nail), not including thumb, sequela
T23.332A	Burn of third degree of multiple left fingers (nail), not including thumb, initial encounter
T23.332D	Burn of third degree of multiple left fingers (nail), not including thumb, subsequent encounter
T23.332S	Burn of third degree of multiple left fingers (nail), not including thumb, sequela
T23.339A	Burn of third degree of unspecified multiple fingers (nail), not including thumb, initial encounter

T23.339D	Burn of third degree of unspecified multiple fingers (nail), not including thumb, subsequent encounter
T23.339S	Burn of third degree of unspecified multiple fingers (nail), not including thumb, sequela
T23.341A	Burn of third degree of multiple right fingers (nail), including thumb, initial encounter
T23.341D	Burn of third degree of multiple right fingers (nail), including thumb, subsequent encounter
T23.341S	Burn of third degree of multiple right fingers (nail), including thumb, sequela
T23.342A	Burn of third degree of multiple left fingers (nail), including thumb, initial encounter
T23.342D	Burn of third degree of multiple left fingers (nail), including thumb, subsequent encounter
T23.342S	Burn of third degree of multiple left fingers (nail), including thumb, sequela
T23.349A	Burn of third degree of unspecified multiple fingers (nail), including thumb, initial encounter
T23.349D	Burn of third degree of unspecified multiple fingers (nail), including thumb, subsequent encounter
T23.349S	Burn of third degree of unspecified multiple fingers (nail), including thumb, sequela
T23.351A	Burn of third degree of right palm, initial encounter
T23.351D	Burn of third degree of right palm, subsequent encounter
T23.351S	Burn of third degree of right palm, sequela
T23.352A	Burn of third degree of left palm, initial encounter
T23.352D	Burn of third degree of left palm, subsequent encounter
T23.352S	Burn of third degree of left palm, sequela
T23.359A	Burn of third degree of unspecified palm, initial encounter
T23.359D	Burn of third degree of unspecified palm, subsequent encounter
T23.359S	Burn of third degree of unspecified palm, sequela
T23.361A	Burn of third degree of back of right hand, initial encounter
T23.361D	Burn of third degree of back of right hand, subsequent encounter
T23.361S	Burn of third degree of back of right hand, sequela
T23.362A	Burn of third degree of back of left hand, initial encounter
T23.362D	Burn of third degree of back of left hand, subsequent encounter
T23.362S	Burn of third degree of back of left hand, sequela
T23.369A	Burn of third degree of back of unspecified hand, initial encounter
T23.369D	Burn of third degree of back of unspecified hand, subsequent encounter
T23.369S	Burn of third degree of back of unspecified hand, sequela
T23.371A	Burn of third degree of right wrist, initial encounter
T23.371D	Burn of third degree of right wrist, subsequent encounter
T23.371S	Burn of third degree of right wrist, sequela
T23.372A	Burn of third degree of left wrist, initial encounter
T23.372D	Burn of third degree of left wrist, subsequent encounter
T23.372S	Burn of third degree of left wrist, sequela
T23.379A	Burn of third degree of unspecified wrist, initial encounter
T23.379D	Burn of third degree of unspecified wrist, subsequent encounter
T23.379S	Burn of third degree of unspecified wrist, sequela

T23.391A	Burn of third degree of multiple sites of right wrist and hand, initial encounter
T23.391D	Burn of third degree of multiple sites of right wrist and hand, subsequent encounter
T23.391S	Burn of third degree of multiple sites of right wrist and hand, sequela
T23.392A	Burn of third degree of multiple sites of left wrist and hand, initial encounter
T23.392D	Burn of third degree of multiple sites of left wrist and hand, subsequent encounter
T23.392S	Burn of third degree of multiple sites of left wrist and hand, sequela
T23.399A	Burn of third degree of multiple sites of unspecified wrist and hand, initial encounter
T23.399D	Burn of third degree of multiple sites of unspecified wrist and hand, subsequent encounter
T23.399S	Burn of third degree of multiple sites of unspecified wrist and hand, sequela
T24.301A	Burn of third degree of unspecified site of right lower limb, except ankle and foot, initial encounter
T24.301D	Burn of third degree of unspecified site of right lower limb, except ankle and foot, subsequent encounter
T24.301S	Burn of third degree of unspecified site of right lower limb, except ankle and foot, sequela
T24.302A	Burn of third degree of unspecified site of left lower limb, except ankle and foot, initial encounter
T24.302D	Burn of third degree of unspecified site of left lower limb, except ankle and foot, subsequent encounter
T24.302S	Burn of third degree of unspecified site of left lower limb, except ankle and foot, sequela
T24.309A	Burn of third degree of unspecified site of unspecified lower limb, except ankle and foot, initial encounter
T24.309D	Burn of third degree of unspecified site of unspecified lower limb, except ankle and foot, subsequent encounter
T24.309S	Burn of third degree of unspecified site of unspecified lower limb, except ankle and foot, sequela
T24.311A	Burn of third degree of right thigh, initial encounter
T24.311D	Burn of third degree of right thigh, subsequent encounter
T24.311S	Burn of third degree of right thigh, sequela
T24.312A	Burn of third degree of left thigh, initial encounter
T24.312D	Burn of third degree of left thigh, subsequent encounter
T24.312S	Burn of third degree of left thigh, sequela
T24.319A	Burn of third degree of unspecified thigh, initial encounter
T24.319D	Burn of third degree of unspecified thigh, subsequent encounter
T24.319S	Burn of third degree of unspecified thigh, sequela
T24.321A	Burn of third degree of right knee, initial encounter
T24.321D	Burn of third degree of right knee, subsequent encounter
T24.321S	Burn of third degree of right knee, sequela
T24.322A	Burn of third degree of left knee, initial encounter
T24.322D	Burn of third degree of left knee, subsequent encounter
T24.322S	Burn of third degree of left knee, sequela
T24.329A	Burn of third degree of unspecified knee, initial encounter
T24.329D	Burn of third degree of unspecified knee, subsequent encounter
T24.329S	Burn of third degree of unspecified knee, sequela
T24.331A	Burn of third degree of right lower leg, initial encounter
T24.331D	Burn of third degree of right lower leg, subsequent encounter

T24.331S	Burn of third degree of right lower leg, sequela
T24.332A	Burn of third degree of left lower leg, initial encounter
T24.332D	Burn of third degree of left lower leg, subsequent encounter
T24.332S	Burn of third degree of left lower leg, sequela
T24.339A	Burn of third degree of unspecified lower leg, initial encounter
T24.339D	Burn of third degree of unspecified lower leg, subsequent encounter
T24.339S	Burn of third degree of unspecified lower leg, sequela
T24.391A	Burn of third degree of multiple sites of right lower limb, except ankle and foot, initial encounter
T24.391D	Burn of third degree of multiple sites of right lower limb, except ankle and foot, subsequent encounter
T24.391S	Burn of third degree of multiple sites of right lower limb, except ankle and foot, sequela
T24.392A	Burn of third degree of multiple sites of left lower limb, except ankle and foot, initial encounter
T24.392D	Burn of third degree of multiple sites of left lower limb, except ankle and foot, subsequent encounter
T24.392S	Burn of third degree of multiple sites of left lower limb, except ankle and foot, sequela
T24.399A	Burn of third degree of multiple sites of unspecified lower limb, except ankle and foot, initial encounter
T24.399D	Burn of third degree of multiple sites of unspecified lower limb, except ankle and foot, subsequent encounter
T24.399S	Burn of third degree of multiple sites of unspecified lower limb, except ankle and foot, sequela
T25.311A	Burn of third degree of right ankle, initial encounter
T25.311D	Burn of third degree of right ankle, subsequent encounter
T25.311S	Burn of third degree of right ankle, sequela
T25.312A	Burn of third degree of left ankle, initial encounter
T25.312D	Burn of third degree of left ankle, subsequent encounter
T25.312S	Burn of third degree of left ankle, sequela
T25.319A	Burn of third degree of unspecified ankle, initial encounter
T25.319D	Burn of third degree of unspecified ankle, subsequent encounter
T25.319S	Burn of third degree of unspecified ankle, sequela
T25.321A	Burn of third degree of right foot, initial encounter
T25.321D	Burn of third degree of right foot, subsequent encounter
T25.321S	Burn of third degree of right foot, sequela
T25.322A	Burn of third degree of left foot, initial encounter
T25.322D	Burn of third degree of left foot, subsequent encounter
T25.322S	Burn of third degree of left foot, sequela
T25.329A	Burn of third degree of unspecified foot, initial encounter
T25.329D	Burn of third degree of unspecified foot, subsequent encounter
T25.329S	Burn of third degree of unspecified foot, sequela
T25.331A	Burn of third degree of right toe(s) (nail), initial encounter
T25.331D	Burn of third degree of right toe(s) (nail), subsequent encounter
T25.331S	Burn of third degree of right toe(s) (nail), sequela
T25.332A	Burn of third degree of left toe(s) (nail), initial encounter

T25.332D	Burn of third degree of left toe(s) (nail), subsequent encounter
T25.332S	Burn of third degree of left toe(s) (nail), sequela
T25.339A	Burn of third degree of unspecified toe(s) (nail), initial encounter
T25.339D	Burn of third degree of unspecified toe(s) (nail), subsequent encounter
T25.339S	Burn of third degree of unspecified toe(s) (nail), sequela
T25.391A	Burn of third degree of multiple sites of right ankle and foot, initial encounter
T25.391D	Burn of third degree of multiple sites of right ankle and foot, subsequent encounter
T25.391S	Burn of third degree of multiple sites of right ankle and foot, sequela
T25.392A	Burn of third degree of multiple sites of left ankle and foot, initial encounter
T25.392D	Burn of third degree of multiple sites of left ankle and foot, subsequent encounter
T25.392S	Burn of third degree of multiple sites of left ankle and foot, sequela
T25.399A	Burn of third degree of multiple sites of unspecified ankle and foot, initial encounter
T25.399D	Burn of third degree of multiple sites of unspecified ankle and foot, subsequent encounter
T25.399S	Burn of third degree of multiple sites of unspecified ankle and foot, sequela

References

Adetugbo K, Williams H. How well are randomized controlled trials reported in the dermatology literature? *Arch Dermatol*. 2000;136(3):381-385.

Agency for Health Care Policy and Research (AHCPR). Panel on the Prediction and Prevention of Pressure Ulcers in Adults. Pressure Ulcers in Adults: Prediction and Prevention. Quick Reference Guide for Clinicians. AHCPR Publication No. 92-0050. Rockville, MD: Agency for Health Care Policy and Research, Public Health Service, U.S. Department of Health and Human Services. May 1992. National Library of Medicine (NLM) [website]. https://www.ncbi.nlm.nih.gov/books/NBK63854/#A9026. Accessed July 21, 2025.

Agency for Healthcare Research and Quality (AHRQ) Website. Technology Assessment. Negative pressure wound therapy devices. November 12, 2009. Available at: http://www.ahrq.gov.

Alexander JH, Yeager DA, Stern DS, et al. Equine Pericardium as a Biological Covering for the Treatment of Diabetic Foot Wounds: A Prospective Study. *Journal of the American Podiatric Medical Association*. 2012; 102(5):352-357.

AlloPatch™ Pliable, Allograft Dermal Matrix package insert. PI-112 Rev1, 01/2015

American Medical Association. (2013). *Current Procedural Terminology* (CPT®) Fourth Edition

American Society of Plastic Surgeons (ASPS) Website. Evidence based clinical practice guideline: chronic wounds of the lower extremity. May 2007. https://www.plasticsurgery.org/for-medical-professionals/quality/evidence-based-clinical-practice-guidelines. Accessed July 21, 2025.

Association for the Advancement of Wound Care (AAWC). Venous ulcer guideline. November 2014. http://www.o-wm.com/article/association-advancement-wound-care-aawc-venous-and-pressure-ulcer-guidelines. Accessed July 11, 2025.

Bello YM, Falabella AF, Eaglstein WH. Tissue-engineered skin. Current status in wound healing, *Am J Clin Dermatol,* 2001;2(5):305-13.

Boulton AJ, Kirsner RS, Vileikyte L, Neuropathic Diabetic Foot Ulcers. *N Engl J Med.* July 2004; 351(1): 48-55.

Brem H, Balledux J, Bloom T, et al. Healing of Diabetic Foot Ulcers and Pressure Ulcers with Human Skin Equivalent. *Arch Surg,* 2000;135:627-634.

Brem H, Balledux J, Sukkarieh T, et al. Healing of Venous Ulcers of Long Duration with a Bilayered Living Skin Substitute: Results from a General Surgery and Dermatology Department. *Dermatol Surg,* 2001;27:915-919.

Brem H, Kirsner RS, MD, Falanga V. Protocol for the successful treatment of venous ulcers. *American Journal of Surgery,* 2004;188(1).

Brem H, Sheehan P, Boulton A JM. Protocol for treatment of diabetic foot ulcers. *American Journal of Surgery,* 2004;187:(5).

Brem H, Young J, Tomic-Canic M, et al. Clinical efficacy and mechanism of Bilayered Living Human Skin Equivalent (HSE) in Treatment of Diabetic Foot Ulcers. *Surgical Technology International,* XI:2003;23-31.

Bundy AM, Ley A, Cryopreserved Allograft as an Alternative Option for Closure of Diabetic Foot Ulcers. *Podiatry Management.* August 2013: 131-136.

Cairns B, Peterson S, Meyer A. Skin Replacements. *Arch Surg,* 1993;28.

Coerper S, Beckert S, Kuper M, et al. Fifty percent area reduction after 4 weeks of treatment is a reliable indicator for healing – analysis of a single-center cohort of 704 diabetic patients. *Journal of Diabetes and Its Complications.* 2008; 02: 1-5.

Curran MP, Plosker GL. Bilayered Bioengineered Skin Substitute (Apligraf®) A Review of its Use in the Treatment of Venous Leg Ulcers and Diabetic Foot Ulcers. *BioDrugs,* 2002;16(6):439-455.

DiDomenico L, Emch KJ, Landsman AR, et al. A Prospective Comparison of Diabetic Foot Ulcers Treated with either a Cryopreserved Skin Allograft or a Bioengineered Skin Substitute. *Wounds.* 2011; 23(7): 184-189.

Eaglstein W, Falanga V. Tissue Engineering and the Development of Apligraf, a Human Skin Equivalent, *Clinical Therapeutics,* 1997;19:(5).

Edmonds M, Bates M, Doxford M, et al. New treatments in ulcer healing and wound infection. *Diabetes Metab Res* Rev, 2000;(16):S51-4.

Elias S. Minimally Invasive Vein Surgery (MIVS) and Wound Healing: A Vascular Surgeon's Perspective. Supplement to VDM.2007.

Falanga V, Margolis D, Alvarez O et al. Rapid Healing of Venous Ulcers and Lack of Clinical Rejection With an Allogenic Cultured Human Skin Equivalent. *Arch Dermatol*/ 1998;134.

Falanga V. How to Use Apligraf® to Treat Venous Ulcers, *Skin & Aging,* February 1999.

FDA U.S. Food & Drug Administration. Tissue & Tissue Products. March 2024. https://www.fda.gov/BiologicsBloodVaccines/TissueTissueProducts/default.htm. Accessed July 21, 2025.

Fivenson DP, Scherschun L, Choucair M, et al. Graftskin therapy in epidermolysis bullosa. *Journal of the American Academy of Dermatology*, 2003;48(6).

Fleischli JG, Laughlin TJ, Fleischli JW. Equine Pericardium Collagen Wound Dressing in the Treatment of the Neuropathic Diabetic Foot Wound: A Pilot Study. *Journal of American Podiatric Medical Association*. 2009; 99(4): 301-305.

Fletcher A, Cullum N, Sheldon TA. A systematic review of compression treatment for venous leg ulcers. *BMJ.* 1997;315(7108):576-580.

Foti C, Bonamonte D, Conserva A, Angelini G. Allergic contact dermatitis to regenerated oxidized cellulose contained in a matrix employed for wound therapy. *Contact Dermatitis*. 2007; 57(1):47-48.

Franz MG, Robson MC, Steed DL, Barbul A, Brem H, Cooper DM, et al. Guidelines to aid healing of acute wounds by decreasing impediments of healing. *Wound Repair Regen.* 2008;16(6):723-748.

Frykberg RG. Diabetic Foot Ulcers: Pathogenesis and Management. November 1, 2002. American Academy of Family Physicians (AAFP) [website]. http://www.aafp.org/afp/2002/1101/p1655.html. Accessed July 15, 2024.

Gelfand JM, Hoffstad O, Margolis DJ, Surrogate Endpoints for the Treatment of Venous Leg Ulcers. *The Journal of Investigative Dermatology.*December 2002; 119(6): 1420-1425.

Greer, N., Foman, N., MacDonald, R., Dorrian, J., Fitzgerald, P., Rutks, I., and Wilt, T. (2013). Advanced wound care therapies for nonhealing diabetic, venous, and arterial ulcers. *Annals of Internal Medicine,* 159(8), 532-542.

Hanft J, Surprenant MS. Healing of Chronic Foot Ulcers in Diabetic Patients Treated with a Human Fibroblast-Derived Dermis. *J Foot & Ankle Surgery,* 2002;41(5):291-299.

Harding KG, Morris HL, Patel GK. Science, medicine and the future: healing chronic wounds. *BMJ*. 2002;324(7330):160-163.

Hayes, Inc. Hayes Medical Technology Directory Report. Skin Substitutes for Chronic Venous Leg Ulcers in Adults: A Review of Reviews. Lansdale, PA: Hayes, Inc.; November, 2017.

Jimenez PA, Jimenez SE. Tissue and cellular approaches to wound repair. *American Journal of Surgery,* 2004;187:(5)

Jones I, Currie L, Martin R. A guide to biological skin substitutes. *Br J Plast Surg*. 2002;55(3):185-193.

Jones JE, Nelson EA, Al-Hity A, Skin grafting for venous leg ulcers (Review). *The Cochrane Collaboration.* 2013; 1: 1-62.

Kakagia DD, Kazakos KJ, Xarchas KC, Karanikas M, Georgiadis GS, Tripsiannis G, et al. Synergistic action of protease-modulating matrix and autologous growth factors in healing of diabetic foot ulcers. A prospective randomized trial. *J Diabetes Complications.* 2007;21(6):387-391.

Karr JC, Retrospective Comparison of Diabetic Foot Ulcer and Venous Statis Ulcer Healing Outcome Between a Dermal Repair Scaffold (PriMatrix) and a Bilayered Living Cell Therapy (Apligraf). *Advances in Skin & Wound Care.* March 2011; 24(3): 119-125.

Kavros SJ, Acellular Fetal Bovine Dermal Matrix for Treatment of Chronic Ulcerations of the Midfoot Associated with Charcot Neuroarthropathy. *Foot & Ankle Specialist.* August 2012; 5(4): 230-234.

Kavros SJ, Dutra T, Gonzalez-Cruz R, et al. The Use of Primatrix, a Fetal Bovine Acellular Dermal Matrix, in Healing Chronic Diabetic Foot Ulcers: A Prospective Multicenter Study. *Advances in Skin & Wound Care.* August 2014; 27(8): 356-362

Kimmel HM, Robin AL, An Evidence-Based Algorithm for Treating Venous Leg Ulcers Utilizing the Cochrane Database of Systematic Reviews. *Wounds.* 2013; 25(9): 242-250.

Kirsner R, Falanga V, Fivenson D, et al. Clinical Experience with a Human Skin Equivalent for the Treatment of Venous Leg Ulcers: Process and Outcomes. *Wounds,* 1999.

Li W, Dasgeb B, Phillips T, et al. Wound-Healing Perspectives. *Dermatologic Clinics,* 2005;23:(2).

Lionelli GT, Lawrence T, Wound dressings. *Surgical Clinics of North America,* 2003;(83).

Lullove E, Acellular Fetal Bovine Dermal Matrix in the Treatment of Nonhealing Wounds in Patients with Complex Comorbidities. *Journal of the American Podiatric Medical Association.* May/June 2012; 102(3): 233-239.

Margolis DJ, Kantor J, Berlin JA. Healing of Diabetic Neuropathic Foot Ulcers Receiving Standard Treatment. *Diabetes Care,* 1999;22:692-695.

Margolis DJ, Hoffstad O, Gelfand J, et al. Surrogate End Points for the Treatment of Diabetic Neuropathic Foot Ulcers. *Diabetes Care,*2003;26(6):1696-1700.

Marston WA, Hanft J, Norwood P, et al. The Efficacy and Safety of Dermagraft in Improving the Healing of Chronic Diabetic Foot Ulcers. *Diabetes Care,* 2003;26(6):1701-1705.

MD Consult Website. Leong M, Phillips L. Wound dressings. In: Townsend Jr. A, Beauchamp R, Evers B, et al, eds. Townsend: Sabiston Textbook of Surgery, 19th ed. Philadelphia, PA: Elsevier; 2012. Available at: http://www.mdconsult.com.

Mostow EN, Haraway GD, Dalsing M, Hodde JP, King D; OASIS Venous Ulcer Study Group. Effectiveness of an extracellular matrix graft (OASIS Wound Matrix) in the treatment of chronic leg ulcers: a randomized clinical trial. *J Vasc Surg*. 2005;41(5):837-843.

Mostow EN, Wound healing: A multidisciplinary approach for dermatologists. *Dermatologic Clinics,* 2003;21(2).

Nemecek GM, Dayan AD. Safety evaluation of human living skin equivalents. *Toxicol Pathol.* 1999;27(1):101-103.

Netscher DT, Clamon J. Smoking: adverse effects on outcomes for plastic surgical patients. *Plast Surg Nurs.* 1994 Winter;14(4):205-10.

Novitas Solutions. Local Coverage Article. Billing and Coding: Application of Bioengineered Skin Substitutes to Lower Extremity Chronic Non-Healing Wounds (A54117). August 2020. https://www.cms.gov/medicare-coverage-database/view/article.aspx?articleId=54117&ver=86**.** Accessed July 21, 2025.

Novitas Solutions. Local Coverage Determination (LCD): Application of Skin Substitutes to Lower Extremity Chronic Non-Healing Wounds (L35041). Sept. 2019. https://www.cms.gov/medicare-coverage-database/details/lcd-details.aspx?lcdid=35041&ver=113&keyword=Bioengineered%20Skin%20Substitutes&keywordType=starts&areaId=all&docType=NCA,CAL,NCD,MEDCAC,TA,MCD,6,3,5,1,F,P&contractOption=all&sortBy=relevance&bc=AAAAAAQAAAAA&KeyWordLookUp=Doc&KeyWordSearchType=Exact. Accessed July 21, 2025.

O'Donnell Jr. TF, Passman MA, Marston WA, et al. Management of venous leg ulcers: Clinical practice guidelines of the Society for Vascular Surgery® and the American Venous Forum. *J Vasc Surg.* 2014; 60: 3S-59S.

Olin JW, Beusterien KM, Childs MB, Seavey C, McHugh L, Griffiths RI. Medical costs of treating venous stasis ulcers: evidence from a retrospective cohort study. *Vasc Med*. 1999;4(1):1-7.

Pham HT, Rosenblum BI, Lyons TE, Giurini JM, Chrzan JS, Habershaw GM, et al. Evaluation of a human skin equivalent for the treatment of diabetic foot ulcers in a prospective, randomized, clinical trial. *Wounds.* 1999;11(4):79-86.

Phillips TJ. New skin for old: developments in biological skin substitutes. *Arch Dermatol.* 1998;134(3):344-349.

Phillips TJ, Machado F, Trout R, et al. Prognostic indicators in venous ulcers. *J AM Acad Dermatol*. 2000;43(4):627-630.

Pittet D, Wyssa B, Herter-Clavel C, Kursteiner K, Vaucher J, Lew PD. Outcome of diabetic foot infections treated conservatively: a retrospective cohort study with long-term follow-up. *Arch Intern Med.* 1999;159(8):851-856.

Robson MC, Barbul A. Guidelines for the best care of chronic wounds. *Wound Repair Regen.* 2006;14(6):647-648.

Robson MC, Cooper DM, Aslam R, Gould LJ, Harding KG, Margolis DJ, et al. Guidelines for the treatment of venous ulcers. *Wound Repair Regen*. 2006;14(6):649-662.

Romanelli M, Dini V, Bertone M, Barbanera S, Brilli C. OASIS wound matrix versus Hyaloskin in the treatment of difficult-to-heal wounds of mixed arterial/venous aetiology. *Int Wound J*. 2007;4(1):3-7.

Romanelli M, Kaha E, Stege H, Wnorowski JW, Vowden P, Majamaa H, et al. Effect of amelogenin extracellular matrix protein and compression on hard-to-heal venous leg ulcers: follow-up data. *J Wound Care*. 2008;17(1):17-23.

Rossi M, Carpi A, Di Maria C, et al. Absent post-ischemic increase of blood flowmotion in the cutaneous microcirculation of healthy chronic cigarette smokers. *Clinical Hemorheology and Microcirculation.* 2007; 36: 163-171.

Sanders L, Landsman AS, Landsman A, et al. A Prospective, Multicenter, Randomized, Controlled Clinical Trial Comparing a Bioengineered Skin Substitute to a Human Skin Allograft. *Ostomy Wound Management.* September 2014; 60(9): 1-8.

Serena TE, Carter MJ, Le LT, et al. A Multi-center Randomized Controlled Clinical Trial Evaluating the Use of Dehydrated Human Amnion/Chorion Membrane Allografts and Multi-layer Compression Therapy vs. Multi-layer Compression Therapy Alone in the Treatment of Venous Leg Ulcers. May 2014: 1-27.

Shafritz R. Combining Bilayered Living Cell Therapy with Minimally Invasive Vein Surgery: Current Treatment Strategies for Venous Ulcers. Supplement to VDM.2007.

Sheehan P, Jones P, Caselli A, et al. Percent Change in Wound Area of Diabetic Foot Ulcers Over a 4-Week Period is a Robust Predictor of Complete Healing in a 12-Week Prospective Trial. *Diabetes Care.* June 2003; 26(6): 1879-1882.

Shores J. T., Hiersche M., Gabriel A., et al. Tendon coverage using an artificial skin substitute. *Journal of Plastic, Reconstructive & Aesthetic Surgery.*2012; 65: 1544-1550.

Silverstein P. Smoking and wound healing. *Am J Med*. 1992 Jul 15;93(1A):22S-24S.

Snyder, DL, Sullivan, N, Schoelles, KM. Skin Substitutes for Treating Chronic Sounds, Technology Assessment Report, Project ID: HCPRO610, Final Report, December 18,2012. ECRI Institute (EPC) under contract to the Agency for Haelthcare Research and Quality (AHRQ), Rockville MD (Contract Number:HHSA 290-2007-10063).

Snyder, RJ, Kirsner RS, Warriner, III RA, et al. Consensus Recommendations on Advancing the Standard of Care for Treating Neuropathic Foot Ulcers in Patients with Diabetes. *Ostomy Wound Management.* 2010; 56(suppl 4): S1-S24.

Sørensen LT, Zillme R, Agren M, Ladelund S, Karlsmark T, Gottrup F. Effect of smoking, abstention, and nicotine patch on epidermal healing and collagenase in skin transudate. *Wound Repair Regen.* 2009 May-Jun;17(3):347-53. doi: 10.1111/j.1524-475X.2009.00479.x.

Steed DL, Attinger C, Colaizzi T, Crossland M, Franz M, Harkless L, et al. Guidelines for the treatment of diabetic ulcers. *Wound Repair Regen.* 2006;14(6):680-692.

Strauss NH, Brietstein RJ, *Wounds.* 2012; 24(11): 327-334.

US Dept. of Health and Human Services Food and Drug Administration (CDER, CBER, CDRH). Guidance for Industry Chronic Cutaneous Ulcer and Burn Wounds – Developing Products for Treatment. June 2006.

Veves A, Falanga V, Armstrong DG, et al. Graftskin, a Human Skin Equivalent, is Effective in the Management of Noninfected Neuropathic Diabetic Foot Ulcers. *Diabetes Care,* 24(2):290-295, 2001

Veves A, Sheehan P, Pham HT. A randomized, controlled trial of Promogran (a collagen/oxidized regenerated cellulose dressing) vs standard treatment in the management of diabetic foot ulcers. *Arch Surg*. 2002;137(7):822-827.

Vowden P, Romanelli M, Peter R, Boström A, Josefsson A, Stege H. The effect of amelogenins (Xelma) on hard-to-heal venous leg ulcers. *Wound Repair Regen*. 2006;14(3):240-246.

Vowden P, Romanelli M, Price P. Effect of amelogenin extracellular matrix protein and compression on hard-to-heal venous leg ulcers. *J Wound Care*. 2007;16(5):189-195.

Wallenstein S, Brem H, MD, Statistical analysis of wound-healing rates for pressure ulcers. *American Journal of Surgery,* 2004;188(1).

Warriner RA 3rd, Cardinal M; TIDE Investigators. Human fibroblast-derived dermal substitute: results from a treatment investigational device exemption (TIDE) study in diabetic foot ulcers. *Adv Skin Wound Care* 2011 Jul;24(7):306-11.

Waugh HV, Sherratt JA. Modeling the effects of treating diabetic wounds with engineered skin substitutes. *Wound Repair Regen* 2007 Jul-Aug;15(4):556-65

Wilson TC, Wilson JA, Crim B, et al. The Use of Cryopreserved Human Skin Allograft for the Treatment of Wounds With Exposed Muscle, Tendon, and Bone. *Wounds*. 2016;28(4):119-125.

Winters CL, Brigido SA, Liden BA, Simmons M, Hartman JF, Wright ML. A multicenter study involving the use of a human acellular dermal regenerative tissue matrix for the treatment of diabetic lower extremity wounds. *Adv Skin Wound Care.* 2008;21(8):375-381.

Wolcott RD, Cox S, More effective cell-based therapy through biofilm suppression. *Journal of Wound Care.* January 2013; 22(1): 1-6.

Wollina U, Schmidt WD, Krönert C, Nelskamp C, Scheibe A, Fassler D. Some effects of a topical collagen-based matrix on the microcirculation and wound healing in patients with chronic venous leg ulcers: preliminary observations. *Int J Low Extrem Wounds*. 2005;4(4):214-224.

Zelen CM, Gould L, Serena TE, et al. A Prospective, Randomised, Controlled, Multi-Centre Comparative Effectiveness Study of Healing Using Dehydrated Human Amnion/Chorion Membrane Allograft, Bioengineered Skin Substitute, or Standard of Care for Treatment of Chronic Diabetic Lower Extremity Ulcers. *International Wound Journal.* 2014: 1-7.

Zelen CM, Orgill DP, Serena T, et al. A prospective, randomized, controlled, multicentre clinical trial examining healing rates, safety and cost to closure of an acellular reticular allogenic human dermis versus standard of care in the treatment of chronic diabetic foot ulcers. *International Wound Journal*. 2016; 1-9.

Zimny S, Schatz H, Pfohl M. Determinants and estimation of healing times in diabetic foot ulcers. *J Diabetes and Its Complications,* 2002;16:327-332.