

Soft Tissue Fillers, Part 1: Biodegradable

Natalie Curcio, MD, MPH. (Updated July 2015*)

Filler Class	Trade Name	Composition	Skin Test	FDA-approved indication	Depth of injection	Needle
Human collagen, bioengineered	§ Cosmoderm I® § Cosmoderm II®	3.5% Human collagen, 6.5% Human collagen (95% Type I, 5% Type III) + 0.3% lidocaine	No	Soft tissue contour deficiencies (fine lines and wrinkles)	Dermal Dermal	30 G
	§ Cosmoplast®	3.5% Human collagen, Cross-linked + 0.3% lidocaine	No	Soft tissue contour deficiencies (fine lines and wrinkles)	Dermal	30 G
Animal collagen	§ Zyderm I® § Zyderm II®	3.5% Bovine collagen, 6.5% Bovine collagen (95% Type I, 5% Type III) + 0.3% lidocaine	Yes (x2)	Contour deformities of dermis (fine lines and wrinkles)	Dermal Dermal	30 G
	§ Zyplast®	3.5% Bovine collagen, glutaraldehyde cross-linked + 0.3% lidocaine	Yes (x2)	Contour deficiencies of soft tissue (fine lines and wrinkles)	Dermal	30 G
	§ Evolence®	3.5% Porcine collagen (Type I collagen), D-ribose cross-linked	No	Moderate to severe facial wrinkles and folds	Dermal	27 G
	§ Fibrel®	Porcine collagen-derived gelatin, aminocaproic acid, + 1% lidocaine; Mix with patient's plasma	Yes	Distensible scars, including acne scars	Dermal	30 G
Cadaveric tissue	Alloderm®	Acellular human cadaveric dermis	No	"Banked human tissue" FDA regulated for the "repair or replacement of damaged or inadequate integumental tissue"	Non-injectable; subcutaneous	N/A
	Cymetra® (injectable form of Alloderm)	Micronized acellular human cadaveric dermis	No	"Banked human tissue" FDA regulated for soft tissue augmentation	Dermal	26 G
	§ Fascian®	Injectable irradiated human cadaveric preserved particulate fascia lata	No	"Banked human tissue" FDA regulated for facial reconstruction and soft tissue augmentation	Dermal to subdermal	16 G to 26 G
	§ Dermalogen®	Pooled human cadaveric collagen in neutral pH buffer	No	"Banked human tissue" FDA regulated for soft tissue augmentation	Dermal	30 G
Autologous collagen	§ Autologen®	Autologous collagen (Types I, III, VI) from surgically removed skin	No	Does not require FDA approval; Nasolabial folds, rhytides, lip augmentation	Dermal	30 G
Hyaluronic acid (HA)	§ Hylaform® § Hylaform Plus®	HA derived from rooster combs (plus has larger particle size, may last longer)	No	Moderate to severe facial wrinkles and folds	Dermal to subdermal	30 G 27 G
	§ Captique®	HA from Strep. equis	No	Moderate to severe facial wrinkles and folds	Dermal to subdermal	30 G
	Eleveess® (formerly Hydrelle)	HA from Strep. equis + 0.3% lidocaine	No	Moderate to severe facial wrinkles and folds	Dermal to subdermal	30G



Natalie Curcio, MD, M.P.H., is a dermatologic cosmetic surgery fellow at UC-San Francisco.

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Hyaluronic acid (HA)	Prevelle Silk®	HA from Strep. equis; + 0.3% lidocaine	No	Moderate to severe facial wrinkles and folds	Dermal to subdermal	30 G
	Restylane® Restylane-L®	HA from Strep. equis; + 0.3% lidocaine	No	Moderate to severe facial wrinkles and folds	Dermal to subdermal	30 G
	Perlane® Perlane-L®	HA from Strep. equis; + 0.3% lidocaine	No	Moderate to severe facial wrinkles and folds	Dermal to subdermal	27 G
	Juvéderm Ultra® Juvéderm Ultra Plus® Juvéderm XC® Juvéderm Voluma XC®	HA from Strep. equis; Ultra Plus, XC, Voluma XC + 0.3% lidocaine	No	Moderate to severe facial wrinkles and folds; Voluma for midface volume loss	Dermal to subdermal	30 G 27 G
	Belotero Balance® Belotero Volume®	HA from Strep. equis + 0.3% lidocaine	No	Moderate to severe facial wrinkles and folds	Dermal	30 G
Synthetics	Sculptra® Sculptra Aesthetic®	Poly-L-lactic acid microspheres; reconstitute with sterile water	No	Facial lipoatrophy in HIV; Moderate to severe facial wrinkles and folds	Subdermal	26 G
	Radiesse®	Ca hydroxylapatite beads in polysaccharide gel	No	Facial lipoatrophy in HIV; Moderate to deep facial wrinkles and folds	Subdermal	27 G

§No longer commercially available in the US

Biodegradable Soft Tissue Fillers

Non-Permanent Fillers

Collagen		Hyaluronic acid gels	Synthetics
Human	Animal		Poly-L-lactic acid
<u>Cadaver Donor</u> Alloderm® Cymetra® §Fascian® §Dermalogen®	<u>Bovine</u> §Zyderm I, II® §Zyplast®	§Captique® §Hylaform® §Hylaform Plus®	Sculptra® Sculptra Aesthetic®
<u>Autologous</u> Dermal grafts §Autologen®	<u>Porcine</u> §Evolence® §Fibrel®	Elevess® (Hydrelle) Prevelle Silk® Juvéderm Ultra® Juvéderm Ultra Plus® Juvéderm XC®	<u>Calcium hydroxylapatite</u> Radiesse®
<u>Bioengineered Human</u> §Cosmoderm I, II® §Cosmoplast®		Perlane®, Perlane-L® Restylane®, Restylane-L®	

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*Reviewed & updated July 2015 by: Emily deGolian, MD; Elise Herro, MD; Alina Goldenberg, MD & Sharon Jacob, MD.