

DERMAL FILLER PRODUCT COMPARISON

Manufacturer	Product(s)	Key Component	Description	Regulatory Status
aap bio implants	ArteSense R-fine	PMMA Hyaluronic Acid	Polymethylmethacrylate (PMMA) 32-40 microns; purified bovine collagen gel and 3.5% lidocaine; 0.7 ml syringe. Non cross-linked sodium hyaluronate for mesotherapy; 15 mg/ml, 1 ml and 2 ml syringe.	CE marked in Europe, approved in China, Korea, Canada and other markets globally. CE marked in Europe, approved in China, Canada and other markets globally.
Adoderm	VARIODERM Fine Line VARIODERM VARIODERM Plus VARIODERM Subdermal VARIODERM Lips and Medium	Non-animal Hyaluronic Acid	6 mg/ml; for superficial wrinkles and lip augmentation. 12 mg/ml; for medium wrinkles and lip contour. 18 mg/ml; for deep wrinkles and volume. 27 mg/ml; for volume augmentation and facial contouring. 12 mg/ml; special formulation for lip augmentation and medium wrinkles.	Marketed in Europe and other countries. CE marked, marketed in Europe and other countries.
Alcon Laboratories, Inc.	Silikon 1000	Silicone	Purified, medical grade polydimethylsiloxane oil – 1000 cs. For microdroplet injection.	Silikon 1000 is approved by the FDA for retinal detachments, but not for facial filler indications. Off label use only.
Allergan	Zyderm 1 Zyderm 2 Zyplast CosmoDerm CosmoPlast HydraFill – Softline HydraFill – Softline Max Juvéderm ULTRA 2 Juvéderm ULTRA 3 Juvéderm ULTRA 4 Juvéderm VOLUMA	Purified Bovine Collagen + Lidocaine Purified Human-based Collagen + Lidocaine Non-animal Hyaluronic Acid Non-animal Hyaluronic Acid Non-animal Hyaluronic Acid + Lidocaine Non-animal Hyaluronic Acid Non-animal Hyaluronic Acid	Purified bovine-based collagen 35 mg/ml x 6. Purified bovine-based collagen 65 mg/ml x 6. Purified bovine-based collagen 35 mg/ml, cross-linked with glutaraldehyde x 6. *All collagen products contain 0.3% lidocaine. Purified human-based collagen 35 mg/ml. Purified human-based collagen 35 mg/ml, cross-linked with glutaraldehyde. *All collagen products contain 0.3% lidocaine. Non-animal, cross-linked cohesive hyaluronic acid 24 mg/g. Non-animal, cross-linked cohesive hyaluronic acid 24 mg/g. Non-animal, cross-linked cohesive hyaluronic acid 24 mg/g. Non-animal, cross-linked cohesive hyaluronic acid 24 mg/g. Non-animal, cross-linked cohesive hyaluronic acid 24 mg/g. *All Juvéderm ULTRA products contain 0.3% lidocaine. Non-animal, cross-linked cohesive hyaluronic acid 20 mg/g.	Worldwide Worldwide Worldwide CE marked. CE marked. CE marked. CE marked. CE marked. CE marked for facial volume restoration.
Anteis S.A.	Esthélis – Soft 20 mg/ml Esthélis – Basic 22.5 mg/ml Fortélis Extra 25.5 mg/ml	Hyaluronic Acid	Non-animal 5 phases cross-linked hyaluronic acid with CPM (Cohesive Polydensified Matrix) technology.	CE marked.
Artes Medical	ArteFill	PMMA	20% polymethylmethacrylate (PMMA) – 30 to 50 microns – 80% purified bovine collagen gel and 0.3% lidocaine.	FDA approved.
BioForm Medical, Inc.	Radiesse	CaHA	Synthetic calcium hydroxylapatite (CaHA- 55.7%) microspheres, 25 – 45 microns, suspended in an aqueous polysaccharide gel (1.3% sodium carboxymethylcellulose USP, 6.4% glycerin USP and 36.6% water USP).	FDA approved. CE marked in Europe.
Bioform, of Russia	Argiform	PAAG	Generation polyacrylamide gel comprised of 95% polyacrylamide and 5% water.	N/A
BioPolymer GmbH & Co. KG	MATRIDEX MATRIDUR MATRIGEL	DEAE Sephadex	MATRIDEX: synthetic hyaluronic acid sodium salt 25 mg, hypromellose 15 mg, positively charged DEAE sephadex particles 25 mg (cross-linked dextran). MATRIDUR: synthetic stabilized hyaluronic acid sodium salt 25 mg and hypromellose 5 mg. MATRIGEL: stabilized HA 12.25 mg.	CE marked. No FDA approval.
ColBar LifeScience Ltd.	EVOLENCE EVOLENCE Breeze	Porcine Collagen	35 mg of cross-linked porcine (tendons) collagen – glycation with a natural sugar – dispersed in a phosphate buffered saline solution. Glymatrix technology provides a collagen that extends the benefits for up to 12 months.	Approved in Europe, Canada, Israel, South Korea and other markets globally. FDA approved.
Contura International A/S	Aquamid Aquamid Reconstruction	PAAG	2.5% cross-linked hydrophilic polyacrylamide gel (PAAG) and 97.5% non-pyrogenic water.	CE marked: CE 0543 – March 2001. Trials are ongoing in the U.S. Sold in more than 40 countries around the world.
Dermabiol Institute of Kuhra Vital GmbH	Rhegecoll	PMMA	Rhegecoll: 40% bovine collagen from U.S. calves, 15% A.D.N., 5% embryoblastos (stem cell) 10% polymethacrylate, 15% copolymer 4-G, 15% stabilizer / emulsifier.	Not approved in U.S., worldwide registrations pending.

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Fascia Biosystems	Fascian	Fascia	Human allograft material – fascia, collected from human cadaver donors. Reconstituted with sterile normal saline, 0.5% lidocaine.	Fascian is a tissue product as classified by the FDA, there are no off-label uses – hence a physician can use as desired.
FibroGen, Inc.	FG-5017 (rhCIII) – synthetic human collagen (type III).	Human Collagen	FG-5017 dermal filler is comprised of a cross-linked formulation of recombinant human collagen type III in saline with lidocaine. Collagen is formed based on human DNA sequences in yeast cultures.	Pending approval. Completed human safety clinical trial of recombinant human collagen type III. The pivotal efficacy and safety study required for regulatory approval of FG-5017 is expected to begin in 2005.
FuHua High Molecular Matter Company, Ltd.	Amazingel	PAAG	Hydrophilic polyacrylamide gel.	Approved in Asia – China in 2000.
FzioMed, Inc.	Laresse Dermal Filler	Carboxymethylcellulose, Polyethylene Oxide	Non-permanent, long lasting, ultra smooth dermal filler, containing no bacterial or animal by-products, no cross-linking chemicals and no gel particles.	CE marked.
Isolagen, Inc.	Isolagen	Autologous fibroblast cells	Isolagen autologous cellular system – cultured human fibroblasts.	Available only in UK. Filed IND with FDA – approved.
Laboratories ORGÉV	MacDermol S MacDermol R	Avian Hyaluronic Acid / Chitosan	MacDermol S – Avian non cross-linked hyaluronic acid (2.1%) sodium chloride. MacDermol R – Avian cross-linked hyaluronic acid (3.4%) chitosan chondroitin sulfate sodium chloride.	CE marked. No FDA approval.
LCA Pharmaceutical	Hyaluderm	Hyaluronic Acid	Hyaluderm – non cross-linked sodium hyluronate, 2.0% to 2.5%.	CE marked. No FDA approval.
Medicis	Restylane Restylane Touch Restylane Perlane Restylane Sub-Q	NASHA	NASHA gel – a non-animal hyaluronic acid, stabilized with BDDE. The differentiation is in the size of the NASHA particles, to assure a tissue-tailored range of products. Restylane – 100,000 particles per ml. Restylane Touch – 500,000 particles per ml. Restylane Perlane – 10,000 particles per ml. Restylane Sub-Q – 1,000 particles per ml.	Restylane is approved in the U.S. and Canada. Restylane Perlane and Restylane Fine Lines are approved in Canada / pending FDA approval. Sub-Q is in the approval process.
Mentor Corporation in conjunction with Genzyme Corporation	Puragen Puragen Plus Prevelle Silk	Hyaluronic Acid	Puragen/Puragen Plus: Non-animal derived double cross-linked (DXL technology). Puragen Plus contains lidocaine integrated directly into the formula. Prevelle Silk: Non-animal derived cross-linked hyaluronic acid, 5.5 mg/ml with 0.3% lidocaine integrated directly into the formula.	Puragen/Puragen Plus: Europe clearance – CE marked. FDA clearance pending. Prevelle Silk: FDA approved. Europe clearance – CE marked.
Merz Pharma GmbH & Co. KGaA	Belotero Soft – 20 mg/ml Belotero Basic – 22.5 mg/ml	Hyaluronic Acid	Non-animal double phase cross-linked hyaluronic acid – via biofermentation – with CPM (Cohesive Polydensified Matrix) technology.	CE mark – October 2004 – Merz received the marketing rights for Germany, Austria, Switzerland, Russia and Italy from Anteis SA. U.S. approval pending.
Nordic Aesthetics (by S&V, Germany)	Amalian I Amalian II Amalian III Amalian Lip Amalian Balance	Non-animal Hyaluronic Acid	8.4 mg/ml, bi-phasic gel of cross-linked HA micro-particles dispersed in non cross-linked HA (CIS technology), 1 ml and 2 ml syringes. 24 mg/ml, bi-phasic gel of cross-linked HA micro-particles dispersed in non cross-linked HA (CIS technology), 1 ml and 2 ml syringes. Same as above. 24 mg/ml, biphasic gel of cross-linked HA micro-particles dispersed in non cross-linked HA (CIS technology), 0.5 ml and 1 ml syringes. 12 mg/ml, non cross-linked HA for skin rejuvenation and hydration, 2 ml syringe.	CE marked. CE marked. CE marked. CE marked. CE marked.

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Manufacturer	Product(s)	Key Component	Description	Regulatory Status
Polymekon	BIO-ALCAMID – Face BIO-ALCAMID – Lips BIO-ALCAMID – Body	Polyacrylamide	BIO-ALCAMID – 96% water and 4% synthetic reticulate polymer. Lips is soft and compact. Face has the same composition (it is not a dilution), Body has the same consistency as the Face form, but contains more material. Bioinblue – PVA (polyvinyl alcohol 8%) and water (92%).	BIO-ALCAMID – CE marked in 2001 – no FDA approval.
	Bioinblue – Lips Bioinblue – DeepBlue	PVA		Bioinblue – CE marked in 2003 – no FDA approval.
ProCytech SA	Outline Fine Outline Original Outline Ultra	Polyacrylamide co-DADMA	Outline is absorbable polyacrylamide co-DADMA gel.	Approved in Europe.
	Evolution	Polyacrylamide	Evolution is a mixture of microscopic soft spheres of polyvinyl in a viscoelastic gel of polyacrylamide co-DADMA gel.	
Prollenium Medical Technologies, Inc.	Revanesse Pure	Non cross-linked Hyaluronic Acid	14 mg/ml hyaluronic acid for bio-revitalization.	CE marked, Health Canada.
	Revanesse	Non-animal Hyaluronic Acid	25 mg/ml stabilized hyaluronic acid.	CE marked, Health Canada.
	Revanesse Lips	Non-animal Hyaluronic Acid High-viscosity, non-animal	25 mg/ml stabilized hyaluronic acid.	CE marked.
	Revanesse Ultra	Hyaluronic Acid Non-animal	25 mg/ml stabilized hyaluronic acid.	CE marked, Health Canada. FDA expected in early 2010.
	ReDexis	Hyaluronic Acid, Dextranomer Beads	25 mg/ml stabilized hyaluronic acid, 25 mg/ml dextranomer beads.	CE marked, Health Canada, Korea.
	ReDexis Ultra	Non-animal Hyaluronic Acid, Dextranomer Beads	17 mg/ml stabilized hyaluronic acid, 50 mg/ml dextranomer beads.	CE marked, Health Canada.
Q-Med AB	Restylane Restylane Touch Restylane Perlane Restylane Sub-Q Restylane Lipp Restylane Vital	NASHA	NASHA gel – a non-animal hyaluronic acid, stabilized with BDDE. The differentiation is in the size of the NASHA particles, to assure a tissue-tailored range of products. Restylane – 100,000 particles per ml. Restylane Touch – 500,000 particles per ml. Restylane Perlane – 10,000 particles per ml. Restylane Sub-Q- 1,000 particles per ml.	Restylane is approved worldwide with the exception of Japan. Restylane Perlane, Restylane Sub-Q and Restylane Touch are approved worldwide with the exception of Japan and U.S. U.S. approval in progress. Restylane Lipp approved in Europe. CE mark.
	Macrolane VRF30 Macrolane VRF20	Non-animal Hyaluronic Acid	Concentration 20 mg/ml.	
Rofil Medical Nederland B.V.	Rofilan Forte / Philoderm BeautyGel / Esthirase / Coilingel	Synthetically derived double cross-linked hyaluronic acid	Synthetically derived double cross-linked hyaluronic acid 9 mg/ml, 16 mg/ml and 25 mg/ml.	CE approved in Europe, Canada, Mexico, Brazil, Argentina, Korea and most other countries.
	Reviderm Forte / Philoderm BeautySphere / Lastingel	Dextran sephadex microspheres	Synthetically derived double cross-linked hyaluronic acid 9 mg/ml with 3 mg/ml round dextran microspheres 40 – 60 µ.	CE approved in Europe, Canada, Mexico, Brazil, Argentina, Korea and most other countries.
	Beautical 2 and 5	Polyacrylamide	Cationic copolymer of polyacrylamide co-DADMA.	CE (pending) Canada, Brazil, Argentina and other countries.
	Zetaderm / Zetavisc	Non-animal hyaluronic acid	Sodium hyaluronate 15 mg/ml with lidocaine hydrochloride 3 mg/ml.	CE approved in Canada, Russia and other countries.
	HyalSkin 20/25	BDDE cross-linked hyaluronic acid	Synthetically derived BDDE cross-linked hyaluronic acid 20 mg/ml and 25 mg/ml.	CE mark.
Sanofi-Aventis	Sculptra – U.S., also known as New-Fill or New-Filla	PLLA	Poly-L-Lactic acid (PLLA) hydrogel belonging to the family of aliphatic polyesters. Synthesized from corn.	FDA has approved Sculptra as the only product for the restoration and/or correction of the signs of facial fat loss (lipoatrophy). Approved in Europe in 2000 as NewFill – 2004 as Sculptra for facial aesthetic use.
Stiefel	Atléan BTCP	BTCP	Tricalcium phosphate suspended in hyaluronic acid.	CE marked.
Teoxane Laboratories	Teosyal Global Action Teosyal Deep Lines Teosyal Kiss Teosyal Ultra Deep Teosyal First Lines Teosyal Touch Up Teosyal Meso	Hyaluronic Acid	100% hyaluronic acid-based, resorbable and of non-animal origin.	Europe CE mark. U.S. approval in progress.
Uroplasty	Bioplastique	Silicone	Solid silicone microspheres (100 to 400 and 600 µm) suspended in a polyvinylpyrrolidone vector.	CE mark.