

# Pediatric Endocrinology Nursing Society (PENS) Growth Hormone (GH) Product Guide

*Information is provided as a service of PENS, for use as a HCP educational aid & does not cover all information. For more information refer to product package insert & website.*

Growth Hormone Manufacturer Website Package Insert Date	Product	Concentration	Dose Range	Increments	Preservatives	Stability/Storage Reconstitution Required?	Comments
<b>Genotropin</b> Pfizer Inc. <a href="http://www.genotropin.com">www.genotropin.com</a>  PI: Aug 2009  Indications: Pediatric GHD, TS, PWS, SGA, AGHD, ISS	Genotropin® 12mg Cartridge/ Pen (purple)	12mg/ml	0.2mg to 4.0mg	0.2mg	m-Cresol	Reconstituted within a two chamber color coded cartridge.	Prescribe appropriate size pen needles for pen device.
	Genotropin® 5mg Cartridge/Pen (green)	5mg/ml	0.1mg to 2.0mg	0.1mg	m-Cresol		
	Genotropin® Mixer/Cartridge 12mg (purple)	12mg/ml	NA	NA	m-Cresol		
	Genotropin® Mixer/Cartridge 5mg (green)	5mg/ml	NA	NA	m-Cresol		
	Genotropin® Miniquick	0.25ml per injection , regardless of strength	0.2mg to 2.0mg	0.2mg	Preservative free	May be at or below 25°C (77°F) for up to 3 months. After reconstitution, may be stored under refrigeration for up to 24 hours.	Each miniquick is packaged with a 30g pen needle.
<b>Humatrope</b> Eli Lilly and Company <a href="http://www.humatrope.com">www.humatrope.com</a>  PI: Sept 2010  Indications: Pediatric GHD, TS, SGA, AGHD, ISS, SHOX Deficiency	HumatroPen®/cartridge 24mg (purple)	8.33mg/ml	0.1mg to 6mg	0.1mg	metacresol	Diluent provided with prefilled, premeasured syringe and transfer system for reconstitution.	Prescribe appropriate size pen needles
	HumatroPen®/cartridge 12mg (teal)	4.17mg/ml	0.05mg - 3mg	0.05mg	metacresol		
	HumatroPen®/cartridge 6mg (gold)	2.08mg/ml	0.025mg- 1.5mg	0.025mg	metacresol		
	Humatrope® 5mg Vial	Dependent on reconstitution amount	NA	NA	metacresol  May be reconstituted with bacteriostatic water, if sensitivity to provided diluent.	Each 5mg vial should be reconstituted with 1.5 to 5ml of provided diluents. Store at 2° to 8° C (36° to 46°F).	Prescribe syringes for reconstitution, insulin syringes for administration

### Key to Indication Abbreviations

**GHD:** Growth Hormone Deficiency  
**AGHD:** Adult Growth Hormone Deficiency

**TS:** Turner Syndrome      **PWS:** Prader Willi Syndrome  
**ISS:** Idiopathic Short Stature      **CRI:** Chronic Renal Insufficiency

**SGA:** Small for Gestational Age

# Pediatric Endocrinology Nursing Society (PENS) Growth Hormone (GH) Product Guide

*Information is provided as a service of PENS, for use as a HCP educational aid & does not cover all information. For more information refer to product package insert & website.*

Growth Hormone Manufacturer Website Package Insert Date	Product	Concentration	Dose Range	Increments	Preservatives	Stability/Storage Reconstitution Required?	Comments
						Expires 14 days after reconstitution, when reconstituted with provided diluent..	
<b>Norditropin®</b> NovoNordisk Inc. <a href="http://www.norditropin.com">www.norditropin.com</a>  PI: March 2010  Indications: Pediatric GHD, TS, Noonan Syndrome, SGA, AGHD	NordiFlex® 30mg (purple)	30mg/3ml	0.1mg-6mg	0.1mg	Phenol	Premixed. All Norditropin® products must be refrigerated prior to first use. After initial use, NordiFlex® 5 and 10mg delivery pens, and FlexPro® 5mg and 10mg pens, can either be stored outside of the refrigerator (at up to 77°) for use within 21 days or in the refrigerator (between 36° and 46°F) for use within 28 days.  NordiFlex® 30mg pens, FlexPro® 15mg pen, must always be refrigerated (between 36° and 46°F) both prior to and after the initial injection- for use within 28 days..	FlexPen®, FlexPro® are prefilled disposable pens
	FlexPro® 15mg (green)	15mg/1.5ml	0.1mg-8mg	0.1mg	Phenol		Prescribe appropriate size pen needles
	FlexPro® 10mg (blue)	10mg/1.5ml	0.05mg-4mg	0.05mg	Phenol		Autocover needles available to hide needle
	FlexPro® 5mg (orange)	5mg/1.5ml	0.025mg-2mg	0.025mg	Phenol		After May 31, 2011, Nordiflex 5mg, 10mg, and 15mg pens will no longer be available, but may remain accessible through pharmacies and wholesalers until supplies are depleted.

### Key to Indication Abbreviations

**GHD:** Growth Hormone Deficiency  
**AGHD:** Adult Growth Hormone Deficiency

**TS:** Turner Syndrome      **PWS:** Prader Willi Syndrome  
**ISS:** Idiopathic Short Stature      **CRI:** Chronic Renal Insufficiency

**SGA:** Small for Gestational Age

# Pediatric Endocrinology Nursing Society (PENS) Growth Hormone (GH) Product Guide

*Information is provided as a service of PENS, for use as a HCP educational aid & does not cover all information. For more information refer to product package insert & website.*

Growth Hormone Manufacturer Website Package Insert Date	Product	Concentration	Dose Range	Increments	Preservatives	Stability/Storage Reconstitution Required?	Comments
<b>Nutropin</b> Genentech <a href="http://www.nutropin.com">www.nutropin.com</a>  PI: NutropinAQ Jan 2008 Nutropin June 2006  Indications: GHD, TS, CRI, AGHD, ISS	NutropinAQ® NuSpin™ 20mg (blue)	20mg/2ml	0.2mg- 7mg	0.2mg	Sodium Citrate	Store at 2°-8°C (36° - 46°F). Expires 28 days after initial use. Light sensitive, should be refrigerated in a dark place when not in use.	Needle shield provided with educational materials.  Prescribe appropriate size pen needles.
	NutropinAQ® NuSpin™ 10mg (teal)	10mg/2ml	0.1mg- 3.5mg	0.1mg	Sodium Citrate		
	NutropinAQ® NuSpin™ 5mg (gray)	5mg/2ml	0.05mg- 1.75mg	0.05mg	Sodium Citrate		
	NutropinAQ Pen® 20mg (purple)	20mg/2ml	0.2mg- 8mg	0.2mg	Sodium Citrate		
	NutropinAQ Pen® 10mg (Teal)	10mg/2ml	0.1mg- 4mg	0.1mg	Sodium Citrate		
	Nutropin AQ® Vial 10 mg	10mg/2ml	NA	NA	Sodium Citrate	Prescribe insulin syringes for administration	
	Nutropin® Vial 5mg, 10mg	Dependent on reconstitution amount	NA	NA	Provided diluent has benzyl alcohol as a preservative, which has been associated with toxicity in newborns. For use with newborns, reconstitute with Sterile Water for Injection, USP, use only one dose per Nutropin vial.	Reconstitute with provided diluent. 5mg vial should be reconstituted with 1-5ml, 10mg vial should be reconstituted with 1-10ml. Store at 2°-8°C (36° -46°F). Expires 14 days after reconstitution.	Prescribe syringes for reconstitution, insulin syringes for administration
<b>Omnitrope</b> Sandoz Inc. <a href="http://www.omnitrope.com">www.omnitrope.com</a>  PI: August 2010  Indications: GHD, PWS, SGA, AGHD, ISS, TS	Omnitrope® 10mg Cartridge	10mg/1.5ml	0.1mg- 5.4mg	0.1mg	Benzyl Alcohol	Cartridges should be stored at 2° to 8° C (36° to 46°F). Expires 28 days after first use.	Pen can be obtained from pharmacy with cartridge.  Prescribe appropriate size pen needles
	Omnitrope® 5mg Cartridge	5mg/1.5ml	0.05mg- 2.7mg	0.05mg	Phenol		
	Omnitrope® 5.8mg Vial	NA	NA	NA	Benzyl Alcohol	Reconstitute with contents of diluent vial (1.14ml), concentration will be 5mg/ml. Expires 21 days after reconstitution.	Prescribe appropriate size syringes and needles for dilution and for injection

### Key to Indication Abbreviations

**GHD:** Growth Hormone Deficiency  
**AGHD:** Adult Growth Hormone Deficiency

**TS:** Turner Syndrome  
**ISS:** Idiopathic Short Stature  
**PWS:** Prader Willi Syndrome  
**CRI:** Chronic Renal Insufficiency

**SGA:** Small for Gestational Age

# Pediatric Endocrinology Nursing Society (PENS) Growth Hormone (GH) Product Guide

*Information is provided as a service of PENS, for use as a HCP educational aid & does not cover all information. For more information refer to product package insert & website.*

Growth Hormone Manufacturer Website Package Insert Date	Product	Concen- tration	Dose Range	Incre- ments	Preservatives	Stability/Storage Reconstitution Required?	Comments
<b>Saizen</b> EMD Serono Inc. <a href="http://www.saizenus.com">www.saizenus.com</a>  see website for PI's  Indications: GHD, AGHD	Easypod® device for use with the Click.Easy® Cartridge	8.8mg/1.51ml	0.15mg-4.66	<b>0.01mg</b>	Metacresol	Click easy cartridge is prefilled reconstitution device. Before reconstitution store at room temperature (15°-30°C/59°-86°F). After reconstitution, store at 2°-8°C (36°-46°F) for up to 21 days.	Order Easy Pod Device, 29g Serofine needles, and AAA Lithium Batteries from Connections for Growth. Device includes dose tracking feature to capture patient adherence, and dose adjustment feature to reduce waste of cartridge contents.
	One Click Pen for use with the Click.Easy® Cartridge	8.8mg/1.51ml	0.12-3.38mg	Refer to dosing guide	Metacresol		Order Pen Needles through Connections for Growth.
	Cool Click™ 2 for use with the Saizen® vial	Dependent on reconstitution amount	0.1ml-0.55ml	0.05ml	Metacresol	Reconstitute 5mg vial with 1-3ml of provided diluent. Reconstitute 8.8mg vial with 2-3ml of provided diluent. Before reconstitution store at room temperature (15°-30°C/59°-86°F). After reconstitution, store at 2°-8°C (36°-46°F) for up to 14 days	Cool Click™ 2 device, vial connectors and nozzle and piston sets available from Connections for Growth.  Device delivers a needle free injection.
	Saizen® 8.8mg vial	Dependent on reconstitution amount	NA	NA	Benzyl Alcohol		Prescribe syringes for reconstitution, insulin syringes for administration.
	Saizen® 5mg vial						

### Key to Indication Abbreviations

**GHD:** Growth Hormone Deficiency  
**AGHD:** Adult Growth Hormone Deficiency

**TS:** Turner Syndrome      **PWS:** Prader Willi Syndrome  
**ISS:** Idiopathic Short Stature      **CRI:** Chronic Renal Insufficiency

**SGA:** Small for Gestational Age

# Pediatric Endocrinology Nursing Society (PENS) Growth Hormone (GH) Product Guide

*Information is provided as a service of PENS, for use as a HCP educational aid & does not cover all information. For more information refer to product package insert & website.*

Growth Hormone Manufacturer Website Package Insert Date	Product	Concentration	Dose Range	Increments	Preservatives	Stability/Storage Reconstitution Required?	Comments
<b>Tev-Tropin</b> Gate Pharmaceuticals <a href="http://www.tev-tropin.com">www.tev-tropin.com</a>  PI: October, 2007  Indication: GHD	T-Jet® for use with the 5mg vial	5mg/1ml	0.05mg-2.5mg	0.05mg	Benzyl Alcohol  When administering to newborns, reconstitute with sterile normal saline for injection. Expires 24 hours after reconstitution.	Reconstitute the 5mg vial with one ml diluents (provided). Store vials at 2°-8°C (36°-46°F). Expires 14 days after reconstitution. T-Jet® device should be stored at room temperature.	T-Jet® Device provided by Growth Solutions.  Prescribe syringes for reconstitution.  Order T-Jet® supplies (syringe heads, vial adapters) from pharmacy.
	Tev-Tropin® 5mg vial	Dependent on reconstitution amount	NA	NA		Reconstitute the 5mg vial with 1-5ml of provided diluent. Store vials at 2°-8°C (36°-46°F). Expires 14 days after reconstitution.	Prescribe syringes for reconstitution and injection.

### Key to Indication Abbreviations

**GHD:** Growth Hormone Deficiency  
**AGHD:** Adult Growth Hormone Deficiency

**TS:** Turner Syndrome      **PWS:** Prader Willi Syndrome  
**ISS:** Idiopathic Short Stature      **CRI:** Chronic Renal Insufficiency

**SGA:** Small for Gestational Age