

Enoxaparin

<div>SALAD</div> <div>Ensure correct strength selected</div>				
Preferred Low Molecular Weight Heparin (LMWH) in CUH is Enoxaparin				
Enoxaparin dosing is weight based – use Actual Weight.				
Ensure accuracy of documented weight before administration				
Pregnant women : Refer to BNF				
Caution: High administration Risk Rating				
Form			Store below 25°C.	
		<div>Prefilled enoxaparin Injection</div>	<div>Injection concentration</div>	
		Clexane® 20mg	100mg/ml	
		Clexane® 40mg	100mg/ml	
		Clexane® 60mg	100mg/ml	
		Clexane® 80mg	100mg/ml	
		Clexane® 100mg	100mg/m)	
		Clexane Forte® 120mg	150mg/ml	
		Clexane Forte® 150mg	150mg/ml	
Reconstitution	Already in solution			
Administration	SC: Prophylaxis of venous thromboembolic disease			
	<div>Weight kg</div>	<div>Dose of Enoxaparin according to weight(kg) and renal function - CrCL (mL/min)</div>		
		<div>> 30 mL/min</div>	<div>15-30 mL/min</div>	<div><15 mL/min</div>
	<50	20 mg OD	20 mg OD	Consultant decision
	50 -100	40 mg OD	20 mg OD	20 mg OD
	101-150	40 mg BD	40 mg OD	20 mg OD
	>150	60 mg BD	60 mg OD	Consultant decision
	SC: * Treatment of acute Deep Vein Thrombosis (DVT) and Pulmonary Embolism (PE)			
	<div>CrCl > 30ml/min</div>	<div>Enoxaparin 1.5mg/kg OD sc</div> <div>To be used in uncomplicated patients with low risk of VTE recurrence and actual body weight ≤100kg.</div> <div>or</div> <div>Enoxaparin 1mg/kg BD sc</div> <div>To be used in all other patients such as those with obesity, with symptomatic PE,cancer, recurrent VTE or proximal (vena iliaca) thrombosis.</div>		
	<div>CrCl 15-30ml/min</div>	Enoxaparin 1mg/kg OD sc		
<div>CrCl<15ml/min</div>	Consultant decision			
SC: *Unlicensed indications i.e mechanical heart valves, atrial fibrillation				
<div>CrCl > 30ml/min</div>	Enoxaparin 1mg/kg BD sc			
<div>CrCl 15-30ml/min</div>	Enoxaparin 1mg/kg OD sc			
<div>CrCl<15ml/min</div>	Consultant decision			
• See Administration table below to calculate volume required				

This information has been summarised to act as a guide for those administering IV medication. The monograph should be used in conjunction with the drug data sheet and BNF for information on dose, adverse effects, cautions and contra-indications. Further information is available from Pharmacy on 22146 or 22542

Monitoring	<p>The risk of heparin induced thrombocytopenia HIT also exists with LMWHs. Should thrombocytopenia occur, it usually appears between the 5th and the 21st day following the beginning of enoxaparin.</p> <p>Enoxaparin can suppress adrenal secretion of aldosterone leading to hyperkalaemia.</p> <ul style="list-style-type: none"> All patients should have potassium monitored before and during treatment in patients at risk e.g. renal impairment, diabetes mellitus and patients taking potassium sparing drugs. <p>Routine anti-Xa activity monitoring is not usually required but may be considered in patients:</p> <ul style="list-style-type: none"> At risk of under or over anticoagulation, e.g. in patients with renal or hepatic impairment or at extremes of bodyweight or metallic mechanical heart valves. <p>If you are considering anti-Xa activity monitoring please contact haematology.</p>
Neutralisation of LMWH	<p>The anticoagulant effects of LMWH is neutralized by the slow IV injection of protamine. Excessive protamine doses may worsen bleeding.</p> <p>If enoxaparin neutralization is clinically indicated, see below:</p> <ul style="list-style-type: none"> Enoxaparin administered in ≤8 hours: Dose of protamine should equal the dose of enoxaparin administered. Administer 1 mg of protamine to neutralize 1 mg of enoxaparin; administer by slow IV injection over ~10 minutes; maximum single dose: 50 mg. Enoxaparin administered >8 hours to <12 hours or if a second dose of protamine is required (eg, clinically significant bleeding continues): administer 0.5 mg of protamine for every 1 mg of enoxaparin administered; administer by slow IV injection over ~10 minutes; maximum single dose: 50 mg. <p>However, even with high doses of protamine, the anti-Xa activity of enoxaparin is never completely neutralized (in vitro studies anti Xa neutralised 46% for enoxaparin).</p>
Additional Information	<p>Refer to Enoxaparin Prescribing, Administration and Monitoring on QPulse.</p> <ul style="list-style-type: none"> Enoxaparin is administered by deep SC injection. The injection should be administered preferably when the patient is lying down and rotating the site of injection CrCl calculator is available on MDCalculator https://www.mdcalc.com In some cases it is not possible to achieve the calculated dose due to the graduations on the syringe and so some of the doses have been rounded up as follows: <ul style="list-style-type: none"> The prefilled enoxaparin injection (Clexane®) 60mg, 80mg and 100mg have a concentration of 100mg/ml. Each graduation on the syringe is 0.025ml which is equal to 2.5mg. The dose prescribed should be rounded to the nearest 2.5mg for the volume to be accurately measured. The prefilled enoxaparin injection (Clexane Forte®) 120mg and 150mg have a concentration of 150mg/ml. Each graduation on the syringe is 0.02ml which is equal to 3mg. The dose prescribed should be rounded to the nearest 3mg for the volume to be accurately measured

Table 1: Calculating Therapeutic Dose of Enoxaparin to Prescribe and Administer

1.5mg/kg OD			1mg/kg BD or OD	
Body weight range (kg)	Dose	Injection Volume (ml) and syringe type	Dose	Injection Volume (ml) and syringe type
40-44.9	60mg	0.6ml from 60mg syringe	40mg	0.4ml from 40mg syringe
45-49.9	67.5mg	0.675ml from 80mg syringe	45mg	0.45ml from 60mg syringe
50-54.9	75mg	0.75ml from 80mg syringe	50mg	0.5ml from 60mg syringe
55-59.9	82.5mg	0.825ml from 100mg syringe	55mg	0.55ml from 60mg syringe
60-64.9	90mg	0.9ml from 100mg syringe	60mg	0.6ml from 60mg syringe
65-69.9	97.5mg	0.975ml from 100mg syringe	65mg	0.65ml from 80mg syringe
70-74.9	105mg	0.7ml from 120mg syringe	70mg	0.7ml from 80mg syringe
75-79.9	112.5mg	0.76ml from 120mg syringe	75mg	0.75ml from 80mg syringe
80-84.9	120mg	0.8ml from 120mg syringe	80mg	0.8ml from 80mg syringe
85-89.9	127.5mg	0.86ml from 150mg syringe	85mg	0.85ml from 100mg syringe
90-94.9	135mg	0.9ml from 150mg syringe	90mg	0.9ml from 100mg syringe
95-99.9	142.5mg	0.96ml from 150mg syringe	95mg	0.95ml from 100mg syringe
100-104.9	150mg	1ml from 150mg syringe	100mg	1ml from 100mg syringe
105-109.9			105mg	0.7ml from 120mg syringe
110-114.9			110mg	0.74ml from 120mg syringe
115-119.9			115mg	0.78ml from 120mg syringe
120-124.9			120mg	0.8ml from 120mg syringe
125-129.9			125mg	0.84ml from 150mg syringe
130-134.9			130mg	0.88ml from 150mg syringe
135-139.9			135mg	0.9ml from 150mg syringe
140-144.9			140mg	0.94ml from 150mg syringe
145-149.9			145mg	0.98ml from 150mg syringe
150			150mg	1ml from 150mg syringe

Patients < 40kg and > 150kg, use actual body weight to calculate dose

Information provided relates to Clexane (Sanofi-aventis)

Last updated 8/12/25

This information has been summarised to act as a guide for those administering IV medication. The monograph should be used in conjunction with the drug data sheet and BNF for information on dose, adverse effects, cautions and contra-indications. Further information is available from Pharmacy on 22146 or 22542