

Enoxaparin

SALAD			
Ensure correct strength selected			
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			
	Prefilled enoxaparin Injection	Injection concentration	
	Clexane® 20mg	100mg/ml	
	Clexane® 40mg	100mg/ml	
	Clexane® 60mg	100mg/ml	
	Clexane® 80mg	100mg/ml	
	Clexane® 100mg	100mg/ml	
	Clexane Forte® 120mg	150mg/ml	
	Clexane Forte® 150mg	150mg/ml	
		Store below 25°C.	
Reconstitution	Already in solution		
Administration	SC: Prophylaxis of venous thromboembolic disease		
	Weight kg	Dose of Enoxaparin according to weight(kg) and renal function - CrCl (mL/min)	
	> 30 mL/min	15-30 mL/min	<15 mL/min
		20 mg OD	20 mg OD
	<50	20 mg OD	Consultant decision
	50 -100	20 mg OD	20 mg OD
	101-150	20 mg OD	20 mg OD
	>150	20 mg OD	Consultant decision
SC: * Treatment of acute Deep Vein Thrombosis (DVT) and Pulmonary Embolism (PE)			
	CrCl > 30ml/min	Enoxaparin 1.5mg/kg OD sc To be used in uncomplicated patients with low risk of VTE recurrence and actual body weight $\leq 100\text{kg}$. or Enoxaparin 1mg/kg BD sc	
	CrCl 15-30ml/min	Enoxaparin 1mg/kg OD sc CrCl<15ml/min Consultant decision	
	SC: *Unlicensed indications i.e mechanical heart valves, atrial fibrillation		
	CrCl > 30ml/min	Enoxaparin 1mg/kg BD sc	
	CrCl 15-30ml/min	Enoxaparin 1mg/kg OD sc	
	CrCl<15ml/min	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

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