

**Appendix A: Adult Heparin Protocols at the Downstate Health Sciences University**  
**Updated May 2025**

**Heparin Protocol for Adult Patients**

**Table 1. Initiation of IV Heparin Infusion**

**LOW Dose Protocol:** acute coronary syndrome, atrial fibrillation, concomitant thrombolytic therapy, peripheral artery diseases, or therapeutic anticoagulation desired but patient is at a high risk of bleeding due to acute condition, previous history of bleeding

Initial Bolus Dose (Optional)	Initial Infusion Dose
60 units/kg - Round to closest 100 units - Maximum bolus dose of 5,000 units - Bolus dose administered over 3 minutes	12 units/kg/hr - Round to closest 50 units/hr - Maximum initial dose 1,000 units/hr - Order defaults to duration of 24 hours

**HIGH Dose Protocol:** DVT, PE, mechanical valve replacement

Initial Bolus Dose (Optional)	Initial Infusion Dose
80 units/kg - Round to closest 100 units - Maximum bolus dose of 10,000 units - Bolus dose administered over 3 minutes	18 units/kg/hr - Round to closest 50 units/hr. - Maximum <u>initial</u> rate of 2,000 units/hr - Order defaults to a duration of 24 hours

**Table 2. Maintenance Dose Adjustments Based on aPTT Results **\*\*For Non-Intensive Care Units\*\*****  
**(Target aPTT 60-80 seconds)**

aPTT (sec)	Bolus	Maintenance Infusion Dosage Change	Next aPTT After Change
<45	40 units/kg* <i>*Refer table 3 below for bolus dose adjustment</i>	Increase rate by 3 units/kg/hr	6 hours
45-60	NONE	Increase rate by 2 units/kg/hr	6 hours
60-80 (Goal)	NONE	NO CHANGE	6 hours until therapeutic x 2 consecutive values, then q24h
81-90	NONE	Decrease rate by 3 units/kg/hr	6 hours
> 90	NONE	<b>STOP</b> infusion for 2 hours, Then, decrease rate by 3 units/kg/hr	2 hours after infusion resumed

**Table 3. Bolus Dose Adjustment (40 units/kg) **\*\*For Non-Intensive Care Units\*\*****

Patient Weight (kg)	<60 kg	60-85 kg	85-110 kg	>110 kg
Dose	2,000 units	3,000 units	4,000 units	5,000 units Maximum

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**Table 4. Maintenance Dose Adjustment Heparin IV Nomogram \*\*For Intensive Care Units\*\***  
**(Target aPTT 55-80 seconds)**

aPTT (sec)	BOLUS (Round to nearest 100 units)	Dosage Change	Dosage Change Based on Weight* (Round Doses to Nearest 50 units/hr.)				NEXT aPTT After Change
			40-59 kg	60-69 kg	70-79 kg	>80 kg	
< 35	60 units/kg = ____ units	+ 3 units/kg/hr	↑ by 150 units/hr	↑ by 200 units/hr	↑ by 250 units/hr	↑ by 300 units/hr	6 hours
35-44	30 units/kg = ____ units	+ 2 units/kg/hr	↑ by 100 units/hr	↑ by 150 units/hr	↑ by 150 units/hr	↑ by 200 units/hr	6 hours
45-54	NONE	+ 2 units/kg/hr	↑ by 100 units/hr	↑ by 150 units/hr	↑ by 150 units/hr	↑ by 200 units/hr	6 hours
55-80 (Goal)	NONE	NO CHANGE	NO CHANGE				24 hours
81-95	NONE	- 2 units/kg/hr	↓ by 100 units/hr	↓ by 150 units/hr	↓ by 150 units/hr	↓ by 200 units/hr	6 hours
> 95	NONE	<b>STOP x 1 hour; Restart at - 3 units/kg/hr</b>	↓ by 150 units/hr	↓ by 200 units/hr	↓ by 250 units/hr	↓ by 300 units/hr	6 hours