



Medical Adhesives and Removal Techniques

General Education	<ul style="list-style-type: none"> o Skin injury occurs for 9-43% of hospitalised neonates (including epidermal stripping/Medical Adhesive Related Injury (MARSI))^{1,2} o Erythema persisting 30 minutes after adhesive removal is considered stripping or MARSI^{3,4} 	<i>Prior to application</i>	<i>On application</i>	
	<ul style="list-style-type: none"> • consider if the adhesive is indicated, as adhesives should be left in place for a minimum of 24 hours (adhesion is strongest during the first 24 hours, delaying removal, reduces the risk of injury)⁴ • ensure adhesive length and width is appropriate for the size of the neonate 	<ul style="list-style-type: none"> • be aware that pressure applied to an adhesive will increase the bond to the skin⁵ • fold an edge for easier removal 	<i>Practices and products that <u>increase</u> risk of skin injury</i>	
	<i>On Removal</i>	<ul style="list-style-type: none"> • implement non-pharmacological pain management strategies⁶ • consider the adhesive type to select the best removal technique (e.g. temperature probe covers are available as either gel or hydrocolloid) • start with the folded edge; if no folded edge select an edge and roll • utilise TWO HANDS, one to support the skin, one to remove adhesive^{3,8} 		
Removal Agents*	<ul style="list-style-type: none"> o Avoid agents with high alcohol content and scent⁸ o SILICONE derivative products or WATER are currently preferred (based on pediatric studies⁴) o Clean any residual removal agent from the skin prior to reapplication of adhesive(s) o More evidence is required regarding emollients and oils as removal agents o There is limited evidence regarding the frequency of use of removal agents for neonates 			

Adhesive Base Type		Technique (2 handed)	
Removal Techniques for Adhesive Type	A. Plastic top + acrylate bottom		1 Low & Slow
	B. Silicone (poor adherence to medical devices)		
	C. Hydrocolloid sheet (e.g. DuoDERM®, Comfeel) • high risk of injury ^{5,8-10}		2 Low & Super Slow
	D1. Traditional film, occlusive, polyurethane dressings (border and borderless)		3 Roll & Stretch⁸ or Low & Slow¹¹
	D2. Newer film dressings with grid adhesive		
	E. Gel adhesive		4 Moisten*, then Rub & Loosen
	F. Fabric top + acrylate bottom		5 Soak* Top Layer; then Low & Slow
G. Paper top + acrylate bottom			

View demonstrational tutorials at: <https://www.youtube.com/playlist?list=PLWIZd33AD9nyXtsyG1MdG-I22VkyYdnL>

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Tutorial QR code

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