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# 上肢義肢病例之示範

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第一例：劉小姐 女性 25 歲 台灣省人 職業：電話接線生

截肢方式：左肩關節截肢 原因：車禍 日期：62-5-19

裝配義肢及訓練期間：62-9-7 ~ 62-11-17

義肢種類：肩關節截肢型義肢連同手鉤及義手

第二例：李小姐 女性 17 歲 台灣省人 職業：紡織工

截肢方式：左肘上截肢（短殘端） 原因：職業傷害

裝配義肢及訓練期間：65-2-24 開始 日期：64-10-31

義肢種類：暫用（訓練用）肘上義肢

第三例：陳先生 男性 32 歲 台灣省人 職業：送報業

截肢方式：左肘上截肢（短殘端） 原因：先天性畸形

裝配義肢及訓練期間：63-6-28 ~ 63-7-31

義肢種類：肘上義肢附用倍增式肘關節

第四例：歐陽先生 男性 24 歲 台灣省人 職業：塑膠工

截肢方式：左肘下截肢（極短殘端） 原因：先天性畸形

裝配義肢及訓練期間：60-8-6 ~ 60-9-2

義肢種類：肘下義肢（改良 Munster 型）

第五例：余女士 女性 51 歲 台灣省人 職業：三夾板女工

截肢方式：右肘下截肢 原因：職業傷害 日期：64-4-8

裝配義肢及訓練期間：64-10-20 ~ 65-1-24

義肢種類：標準肘下義肢

第六例：陳先生 男性 43 歲 台灣省人 職業：鐵工

截肢方式：左肘下截肢 原因：電擊 日期：64-7-2

裝配義肢及訓練期間：65-1-23 ~ 65-1-28

義肢種類：肘下義肢使用肩鞍帶

## 上肢義肢裝置前之物理治療

### 一、目的

- (1)使傷口癒合良好及使截肢的形狀穩定
- (2)保持或增加關節活動度
- (3)保持或增加肌肉的力量
- (4)保持或矯正姿勢

### 二、方法

- (1)彈性繃帶包紮：可預防水腫使截肢之周圍 (circumference) 縮小至穩定。

包紮方法：先沿長軸方向包 2 - 3 回，然後螺旋形包上去肘上截肢者要包到胸前，肘下截肢者包到上臂即可，要注意加在遠心端的壓力要比近心端的壓力大。

- (2)上肢截肢者很容易引起肩關節的攣縮，因此手術後要早一點開始做關節運動。

運動方法：(1)健側肩關節的向前、向後等。

(2)患側肩關節的屈曲、外展、內外旋等。

(3)肘關節的屈曲、伸展、旋前、旋後等。

- (3)對於剩餘肌肉的力量採漸進的增強訓練以便控制及使用義肢。

訓練方法：(1)肩關節的屈曲、外展等。

(2)肩甲關節的向前向後等。

肘關節的屈曲、伸展、旋前及旋後。

- (4)由於沒有早期裝義肢，特別是肘上截肢有引起脊柱側彎的病例，所以軀幹肌肉的訓練及提醒病人保持正確的姿勢，如發現不正確姿勢，要立即加以改正。

- (5)其他：如果產生攣縮可使用熱敷水療、超短波、超音波等熱療，加上運動治療以增加關節活動度及肌力，如果有沾連 (Adhesion) 產生，可加上油性按摩，以減少沾連，使軟組織活動性增大。

## MECHANICAL CHECKOUT OF BELOW-ELBOW PROSTHESES

Amputec's Name \_\_\_\_\_

Date \_\_\_\_\_

1. LENGTH OF THE PROSTHESIS	PROSTHESIS off                      on _____              _____		Thumb tip level of the sound side
2. FOREARM ROTATION ( Flexible Hinges Only )	_____	_____	Total rotation with prosthesis on should be half that with prosthesis off.*
3. FOREARM FLEXION	_____	_____	Active flexion with prosthesis on should be within 10' of range with prosthesis off.
4. CONTROL SYSTEM EFFICIENCY Force Applied at Terminal Device Force Applied at Harness Efficiency = $\frac{\text{Force at Term. Device}}{\text{Force at Harness}} \times 100$	HOOK _____ Lbs. _____ Lbs. _____ %	HAND _____ Lbs. _____ Lbs. _____ %	70% or greater
5. TERMINAL DEVICE OPERATION AT 90 FOREARM FLEXION	_____ In.	_____ In.	Full opening and closing
6. TD OPERATION AT MOUTH  TD OPERATION AT PERINEUM	_____ In. _____ % _____ In. _____ %	_____ In. _____ % _____ In. _____ %	70% opening and closing
7. TENSION STABILITY WITH 50- LB. AXIAL LOAD	_____ In.		Prosthesis should not slip on stump more than one inch. Harness should not fail.
8. FIT AND COMFORT UNDER LOAD			No discomfort. No signs of pressure on stump when prosthesis removed.
9. TD PREBENSION GRASP OBJECT—THE SIZE OF A WATER GLASS AT TABLE TOP LEVEL	Pass _____  Fail _____		pass: hold water glass from table to mouth level without dropping Fail: fail to finish above motion.

\*Standard based on well-formed Medium BE stumps. Is often exceeded by Long BE and Wrist Disarticulation cases. Short and/or fleshy stumps may not be able to meet the standard.

Comments :

## MECHANICAL CHECKOUT OF ABOVE-ELBOW OR SHOULDER PROSTHESES

1 LENGTH OF THE PROSTHESIS		Thumb tip level of the sound limb off
2 (AE only) RANGE OF STUMP MOTION, PROSTHESIS ON		
Arm (Humeral) Flexion	_____	Flexion 90
Arm Extension	_____	Extension 30
Arm Elevation	_____	Elevation 90
3 MECHANICAL RANGE OF FOREARM FLEXION		At Least 135
4 ACTIVE RANGE OF FOREARM FLEXION		At Least 135
5 (AE only) ARM (HUMERAL) FLEXION TO FLEX FOREARM		Not more than 45
6 FORCE TO FLEX FOREARM		_____ LBS. Not more than 10 LBS.
7. CONTROL SYSTEM EFFICIENCY		
	<u>HOOK</u> <u>HAND</u>	
Force applied at Terminal Device	_____ LBS. _____ LBS.	
Force Applied at Harness	_____ LBS. _____ LBS.	
Efficiency = $\frac{\text{Forec at Term. Device}}{\text{Force at Harness}} \times 100$		50% or greater
8. TERMINAL DEVICE OPERATION AT 90°		
Forearm Flexion	_____ IN. _____ IN.	Full active operation
9. TD OPERATION AT MOUTH		
Percentage of Full Range	_____ IN. _____ IN.	50% opening and closing
_____ %	_____ %	
TD OPERATION AT PERINEUM		
Percentage of Full Range	_____ IN. _____ IN.	50% opening and closing
_____ %	_____ %	
10. (AE only) SOCKET STABILITY AGAINST TORQUE		Turntable should not turn nor socket slip under lateral or medial pull of 2 LBS at 12 IN. from elbow center.
11. TENSION STABILITY WITH 50-LB. AXIAL LOAD		
	_____ IN.	Socket should not slip more than 1 IN. under 50-LB pull: No failure of harness.
12. FIT AND COMFORT UNDER LOAD		No discomfort. No signs of pressure on stump when pros- thesis removed.
13. TD PREHENSION GRASP OBJECT—THE SIZE OF A WATER GLASS AT TABLE TOP LEVEL		Pass: hold water glass from table to mouth level without dropping. Fail: fail to finish above motion

MOMMENTS:

Examiner