



## روش CTD- RAM

cumulative trauma disorder risk  
assessment model

ارائه دهنده

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عضو هیات علمی دانشگاه علوم پزشکی کاشان



Job Title:	VCR Counter No.:	Date:
Job Description:	Department:	Analyst:

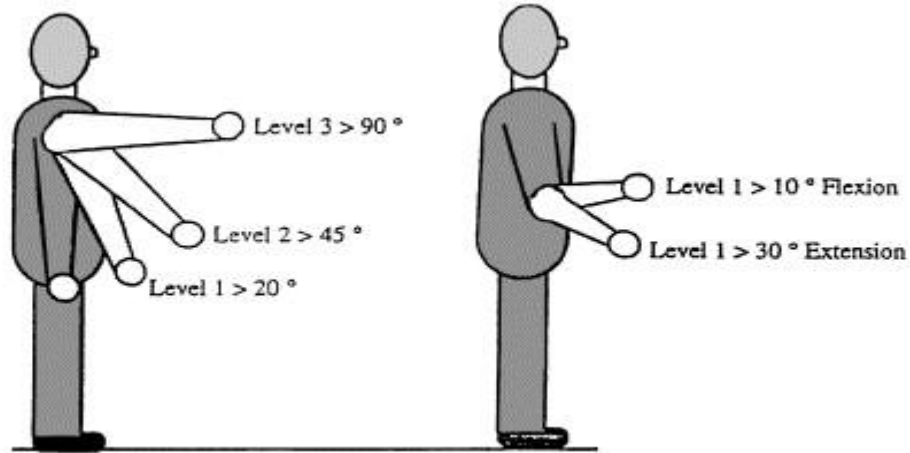
Cycle Time (in minutes; obtain from videotape)		•
# Cycle/Day = $\frac{(480 \cdot \text{Lunch} \cdot \text{Breaks})}{\text{CycleTime}}$ =	• a	Larger of • a or • b:
# Parts / Day (if known)	• b	
# Handmotions / Cycle	•	
# Handmotions / Day (• x •)	•	
Frequency Factor (Divide • by 10,000) =		



شركة ايمن محيط سيلك (S.E.S.CO) (Appropriate condition)

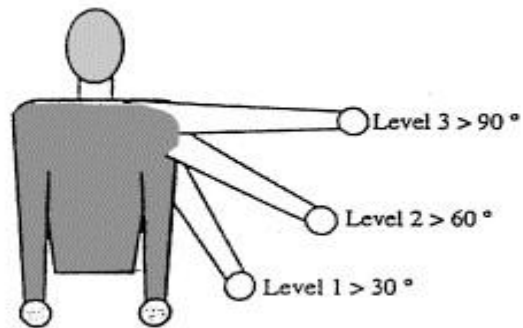
	Points			
	0	1	2	3
Working Posture	Sit	Stand		
Hand Posture 1: Pulp Pinch	No	Yes		
Hand Posture 2: Lateral Pinch	No	Yes		
Hand Posture 3: Palm Pinch	No	Yes		
Hand Posture 4: Finger Press	No	Yes		
Hand Posture 5: Power Grip	Yes	No		
Type of Reach	Horizontal	Up/Down		
Hand Deviation 1: Flexion	No	Yes		
Hand Deviation 2: Extension	No	Yes		
Hand Deviation 3: Radial Dev.	No	Yes		
Hand Deviation 4: Ulnar Dev.	No	Yes		
Forearm Rotation	Neutral	In/Out		
Elbow Angle	• 90•	• 90•		
Shoulder Abduction	0	<45•	<90•	>90•
Shoulder Flexion	0	<90•	<180•	>180•
Back/Neck Angle	0	<45•	<90•	>90•
Balance	Yes	No		
Total the Points for the Circled Conditions •				

Posture Factor (Divide • by 10) =

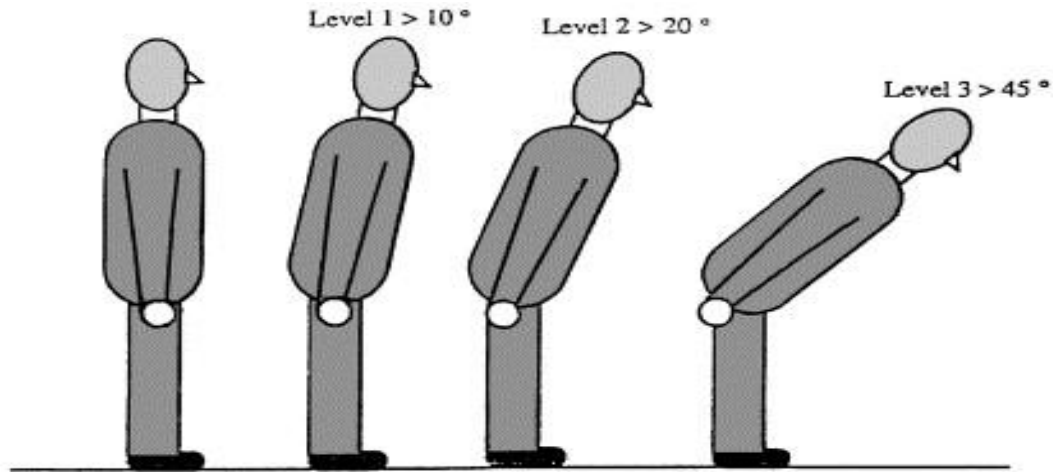


Shoulder Flexion

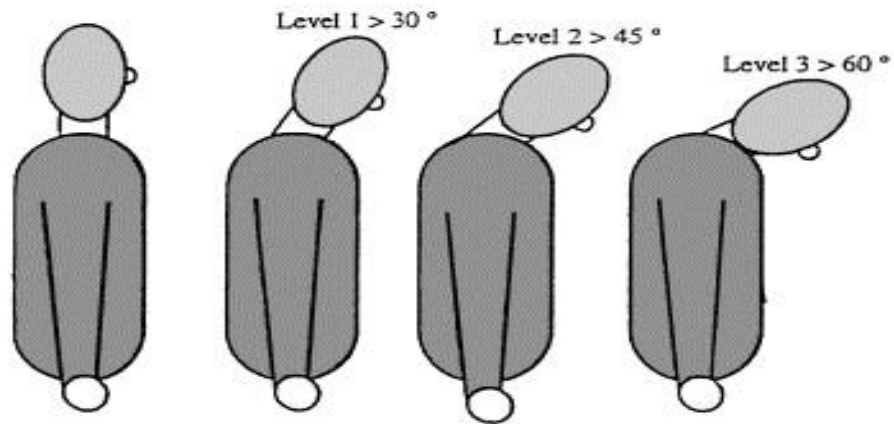
Elbow Flexion/Extension



Shoulder Abduction



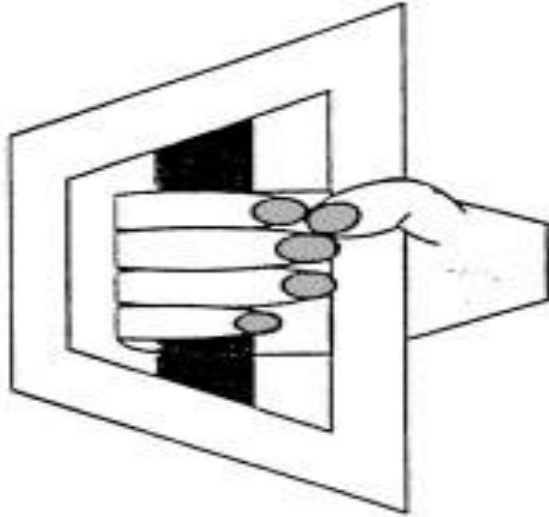
Back Flexion



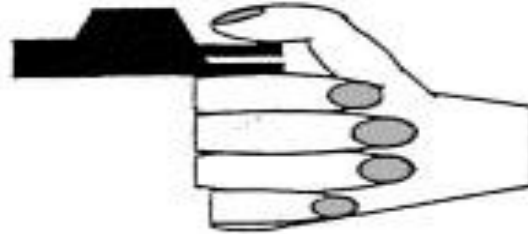
Neck Flexion



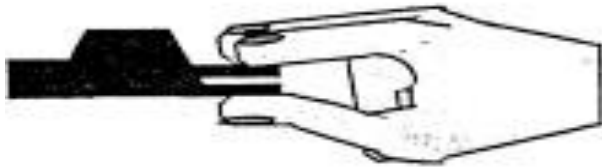
Grip or Pinch Force Used on Task	• lbs.	• Divide • by • :
Max Grip or Pinch Force	• lbs.	
<b>Force Factor (Divide • by .15) =</b>		



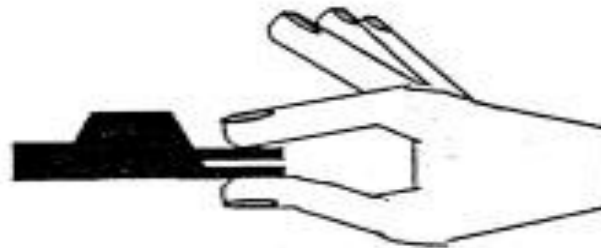
Power Grip



Lateral Pinch



Chuck Pinch



2 point Pulp Pinch



*(Circle appropriate condition)*

	Points			
	0	1	2	3
Sharp Edge	No	Yes		
Glove	No	Yes		
Vibration	No	Yes		
Type of Action	Dynamic	Intermittent	Static	
Temperature	Warm	Cold		
Total the Points for the Circled Conditions •				
Miscellaneous Factor (Divide • by 3) =				





*CTD Risk Index = .3 x (Frequency + Posture + Force Factors) + .1 x (Miscellaneous Factor)*

**CTD Risk Index = .3 x (            +            +            ) + .1 x (            ) =**