

## 4. REBA Method

### What REBA Means

- **Full name:** Rapid Entire Body Assessment
- **Purpose:** To assess biomechanical and postural risks that may lead to musculoskeletal disorders (MSDs).
- **Scope:** Evaluates the **entire body** (upper limbs, trunk, neck, and legs) rather than focusing on one region.
- **Use case:** Commonly applied in industries such as manufacturing, healthcare, logistics, and construction helps safety professionals identify high-risk tasks and prioritize interventions to improve worker health and safety. [ErgoPlus](#)

### How REBA is used as an intervention method

- **Observation:** A worker's posture during a task is analyzed.
- **Scoring system:** Each body part (neck, trunk, legs, arms, wrists) is assigned a score based on posture, movement, and load.
- **Risk factors considered:**
  - Awkward or static postures
  - Repetitive movements
  - Forceful exertions (lifting, pushing, pulling)
  - Coupling/grip quality
- **Final score:** Produces a risk level (low, medium, high, very high) that indicates urgency for corrective action. [Nawo Solution](#)

### Advantages of REBA

- **Rapid assessment:** Designed for quick evaluations in dynamic work environments.
- **Comprehensive:** Covers both upper and lower body, unlike some tools that focus only on specific regions.
- **Practical:** Can be used without specialized equipment—just observation and scoring sheets.
- **Action-oriented:** Provides clear guidance on whether immediate intervention is needed. [ErgoPlus](#)

### Limitations & Considerations

- **Subjectivity:** Relies on the observer's judgment, which can introduce bias.
- **Snapshot approach:** Evaluates posture at a given moment, which may not capture variability in tasks.
- **Training required:** Proper use demands familiarity with ergonomic principles and scoring guidelines.
- **Not exhaustive:** Should be combined with other ergonomic tools (e.g., RULA, OWAS) for a full risk assessment. [Physiopedia](#)

## Step-by-Step REBA Example: Lifting a Box

### 1. Observe the Task

- Worker bends forward to pick up a box (10 kg).
- Knees slightly bent, trunk flexed.
- Arms extended forward, wrists neutral.
- Task repeated several times per hour.

### 2. Score Body Segments: REBA divides the body into two groups:

#### Group A (Trunk, Neck, Legs):

- Trunk flexion  $> 60^\circ$  → Score 4
- Neck flexion  $\sim 20^\circ$  → Score 2
- Legs bent, weight uneven → Score 2

#### Group B (Arms, Wrists):

- Upper arms raised forward  $\sim 45^\circ$  → Score 3
- Lower arms between  $60\text{--}100^\circ$  flexion → Score 2
- Wrists neutral → Score 1

### 3. Add Load/Force & Coupling

- Load: 10 kg → Add +1
- Coupling (grip quality): Fair → Add +1

### 4. Combine Scores

- Group A score (trunk/neck/legs): 8
- Group B score (arms/wrists): 6
- Using REBA tables, combined score  $\approx 9$

### 5. Interpret Risk Level

- **Final REBA score = 9**
- Risk level: **High risk** → Action required soon

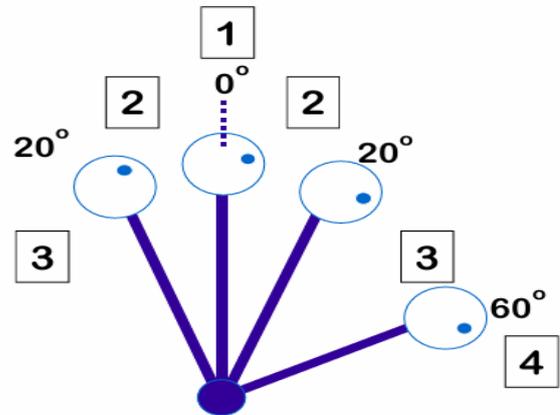
## What This Means

The worker's posture and load handling put them at **high risk of musculoskeletal disorders**. Ergonomic interventions are needed, such as:

- Raising the box to waist height to reduce trunk flexion.
- Using mechanical aids (trolleys, lifts).
- Reducing load weight or frequency.

## REBA: Trunk Score

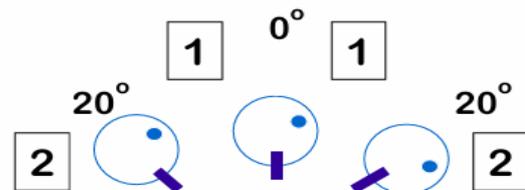
| Movement                               | Score | Change Score                  |
|--|-------|-------------------------------|
| Upright                                | 1     | +1 if twisting or side flexed |
| 0° - 20° flexion<br>0° - 20° extension | 2     |                               |
| 20° - 60° flexion<br>>20° extension    | 3     |                               |
| > 60° flexion                          | 4     |                               |



Source: Hignett, S., McAtamney, L. (2000) Applied Ergonomics, 31, 201-5.

## REBA: Neck Score

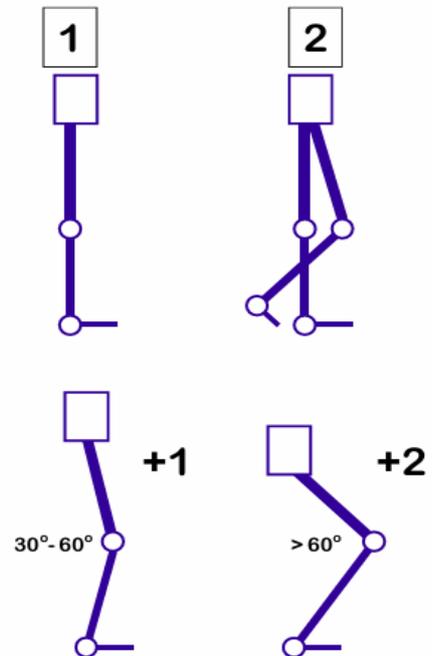
| Movement                             | Score | Change score:                 |
|--------------------------------------|-------|-------------------------------|
| 0° - 20° flexion                     | 1     | +1 if twisting or side flexed |
| >20° flexion<br>or<br>>20° extension | 2     |                               |



Source: Hignett, S., McAtamney, L. (2000) Applied Ergonomics, 31, 201-5.

## REBA: Legs Score

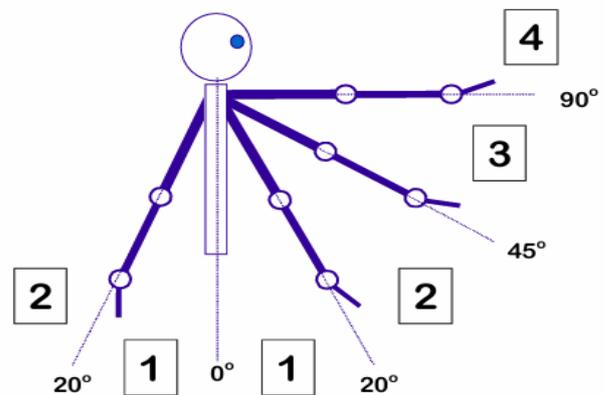
| Position   | Score | Change score                                    |
|--|-------|---|
| Bilateral weight bearing, walking or sitting                               | 1     | +1 if knees between 30° - 60° flexion           |
| Unilateral weight bearing<br>Feather weight bearing or an unstable posture | 2     | +2 if knees >60° flexion (n.b. Not for sitting) |



Source: Hignett, S., McAtamney, L. (2000) Applied Ergonomics, 31, 201-5.

## REBA: Upper Arms

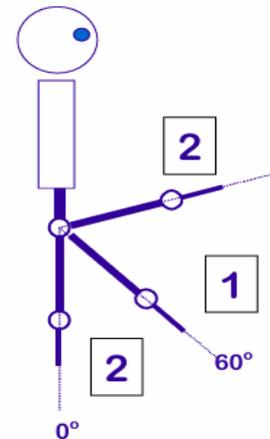
| Position                            | Score | Change score  |
|-------------------------------------|-------|---|
| 20° extension to 20° flexion        | 1     | +1 if arm is abducted or rotated  |
| >20° extension<br>20° - 45° flexion | 2     | +1 if shoulder is raised  |
| 45° - 90° flexion                   | 3     | -1 if leaning, supporting weight of arm or if posture is gravity assisted |
| >90° flexion                        | 4     |   |



Source: Hignett, S., McAtamney, L. (2000) Applied Ergonomics, 31, 201-5.

## REBA: Lower arms

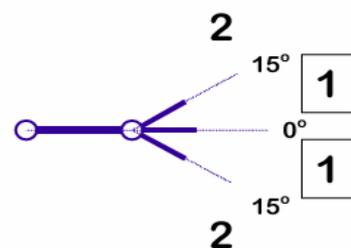
| Movement                            | Score |
|-------------------------------------|-------|
| 60° - 100° flexion                  | 1     |
| <60° flexion<br>or<br>>100° flexion | 2     |



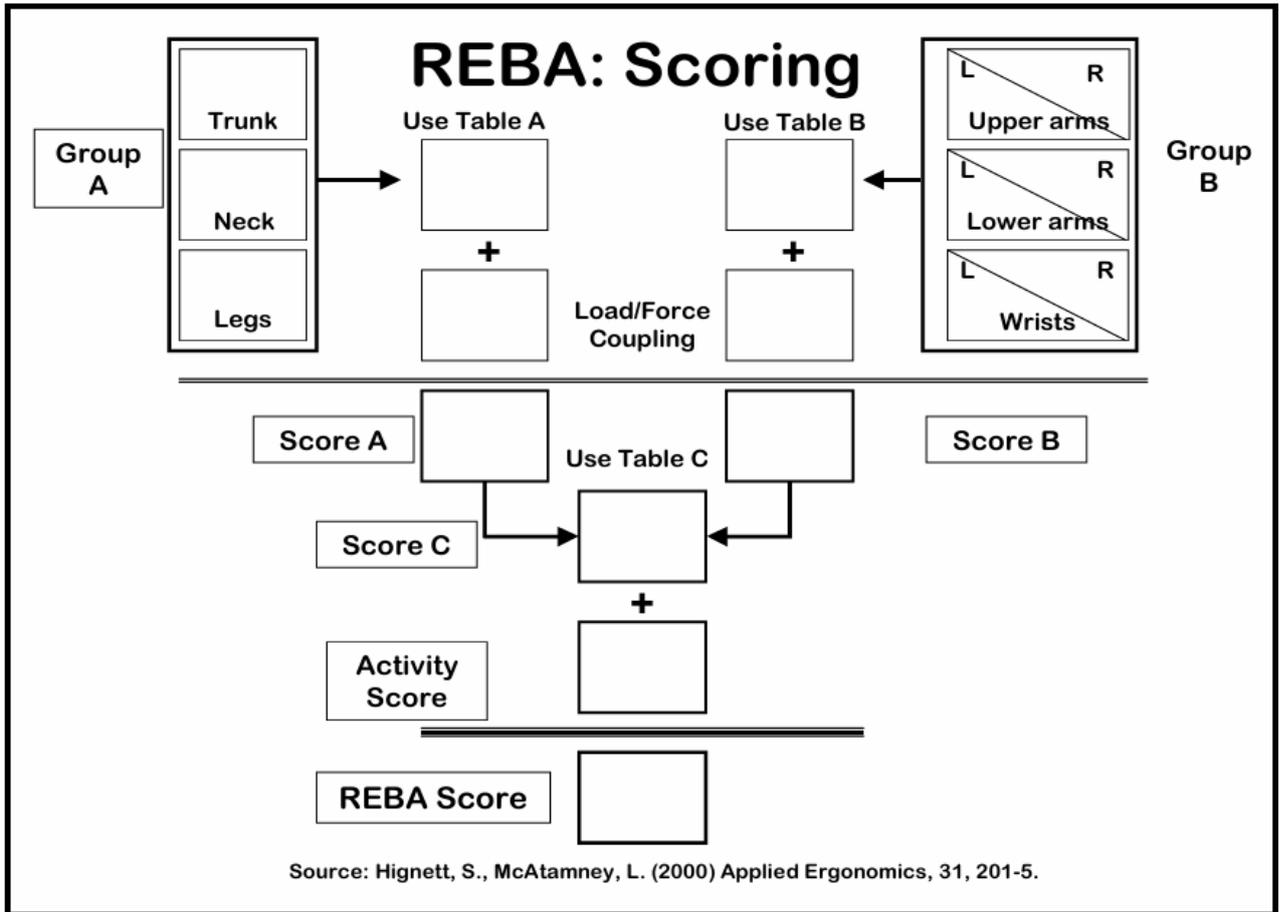
Source: Hignett, S., McAtamney, L. (2000) Applied Ergonomics, 31, 201-5.

## REBA: Wrists

| Movement                              | Score | Change score:                      |
|---------------------------------------|-------|------------------------------------|
| 0° - 15° flexion or extension         | 1     | +1 if wrist is deviated or twisted |
| >15° flexion<br>or<br>> 15° extension | 2     |                                    |



Source: Hignett, S., McAtamney, L. (2000) Applied Ergonomics, 31, 201-5.



## Table A and Load

| Trunk              |      | Neck                  |   |   |   |                    |   |   |   |                                     |   |   |   |
|--------------------|------|-----------------------|---|---|---|--------------------|---|---|---|-------------------------------------|---|---|---|
|                    |      | 1                     |   |   |   | 2                  |   |   |   | 3                                   |   |   |   |
|                    | Legs | 1                     | 2 | 3 | 4 | 1                  | 2 | 3 | 4 | 1                                   | 2 | 3 | 4 |
| 1                  |      | 1                     | 2 | 3 | 4 | 1                  | 2 | 3 | 4 | 3                                   | 3 | 5 | 6 |
| 2                  |      | 2                     | 3 | 4 | 5 | 3                  | 4 | 5 | 6 | 4                                   | 5 | 6 | 7 |
| 3                  |      | 2                     | 4 | 5 | 6 | 4                  | 5 | 6 | 7 | 5                                   | 6 | 7 | 8 |
| 4                  |      | 3                     | 5 | 6 | 7 | 5                  | 6 | 7 | 8 | 6                                   | 7 | 8 | 9 |
| 5                  |      | 4                     | 6 | 7 | 8 | 6                  | 7 | 8 | 9 | 7                                   | 8 | 9 | 9 |
| Load/Force         |      |                       |   |   |   |                    |   |   |   |                                     |   |   |   |
| 0                  |      | 1                     |   |   |   | 2                  |   |   |   | +1                                  |   |   |   |
| < 10 lb<br>(<5 kg) |      | 10-20 lb<br>(5-10 kg) |   |   |   | >20 lb<br>(>10 kg) |   |   |   | Shock or rapid build<br>up of force |   |   |   |

Source: Hignett, S., McAtamney, L. (2000) Applied Ergonomics, 31, 201-5.

## REBA: Table B and Coupling

|           |       | Lower arm |   |   |   |   |   |
|-----------|-------|-----------|---|---|---|---|---|
| Upper arm |       | 1         |   |   | 2 |   |   |
|           | Wrist | 1         | 2 | 3 | 1 | 2 | 3 |
| 1         |       | 1         | 2 | 3 | 1 | 2 | 3 |
| 2         |       | 1         | 2 | 3 | 2 | 3 | 4 |
| 3         |       | 3         | 4 | 5 | 4 | 5 | 5 |
| 4         |       | 4         | 5 | 5 | 5 | 6 | 7 |
| 5         |       | 6         | 7 | 8 | 7 | 8 | 8 |
| 6         |       | 7         | 8 | 8 | 8 | 9 | 9 |

| Coupling                                       |   |  |  |
|--|---|--|--|
| 0 - Good                                       | 1 - Fair  | 2 - Poor                                   | 3 - Unacceptable   |
| Well-fitted handle with a mid-range power grip | Hand hold acceptable but not ideal or coupling is acceptable via another part of the body | Hand hold not acceptable although possible | Awkward, unsafe grip, no handles. Coupling is unacceptable using other parts of the body |

Source: Hignett, S., McAtamney, L. (2000) Applied Ergonomics, 31, 201-5.

## REBA: Table C and Activity Score

|         |    | Score B |    |    |    |    |    |    |    |    |    |    |
|---------|----|---------|----|----|----|----|----|----|----|----|----|----|
|         |    | 1       | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 |
| Score A | 1  | 1       | 1  | 1  | 2  | 3  | 3  | 4  | 5  | 6  | 7  | 7  |
|         | 2  | 1       | 2  | 2  | 3  | 4  | 4  | 5  | 6  | 6  | 7  | 7  |
|         | 3  | 2       | 3  | 3  | 3  | 4  | 5  | 6  | 7  | 7  | 8  | 8  |
|         | 4  | 3       | 4  | 4  | 4  | 5  | 6  | 7  | 8  | 8  | 9  | 9  |
|         | 5  | 4       | 4  | 4  | 5  | 6  | 7  | 8  | 8  | 9  | 9  | 9  |
|         | 6  | 6       | 6  | 6  | 7  | 8  | 8  | 9  | 9  | 10 | 10 | 10 |
|         | 7  | 7       | 7  | 7  | 8  | 9  | 9  | 9  | 10 | 10 | 11 | 11 |
|         | 8  | 8       | 8  | 8  | 9  | 10 | 10 | 10 | 10 | 10 | 11 | 11 |
|         | 9  | 9       | 9  | 9  | 10 | 10 | 10 | 11 | 11 | 11 | 12 | 12 |
|         | 10 | 10      | 10 | 10 | 11 | 11 | 11 | 11 | 12 | 12 | 12 | 12 |
|         | 11 | 11      | 11 | 11 | 11 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
|         | 12 | 12      | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |

| Activity Score   |   |   |
|--|---|---|
| +1 = 1 or more body parts are static, e.g. held for longer than 1 minute | +1 = repeated small range actions, e.g. repeated more than 4 times per minute (excluding walking) | +1 = action causes rapid large range changes in posture or an unstable base |

Source: Hignett, S., McAtamney, L. (2000) Applied Ergonomics, 31, 201-5.

## REBA: Action Levels

| Action level | REBA score | Risk level | Action<br>(including further assessment) |
|--------------|------------|------------|--|
| 0            | 1          | Negligible | None necessary                           |
| 1            | 2-3        | Low        | May be necessary                         |
| 2            | 4-7        | Medium     | Necessary                                |
| 3            | 8-10       | High       | Necessary soon                           |
| 4            | 11-15      | Very high  | Necessary NOW                            |

Source: Hignett, S., McAtamney, L. (2000) Applied Ergonomics, 31, 201-5.