DEVELOPMENT OF THE THEWS PROTOCOL

NAME:

COUNTRY:

Musculoskeletal disorders (MSDs) such as neck/back pain or upper limb disorders remain the most common occupational diseases in the European Union and workers in all sectors and occupations are affected.

T F

While sitting, office workers, tend to lean forward or to slouch down in the chair. This partial immobilization can cause low back pain or neck pain because static posture increases stress on the back, neck, shoulders, arms and legs.

T F

The long time sitting can decrease the amounts of pressure to the back muscles, spinal discs and ligament.

T **F**

These symptoms, along with tight neck muscles and stiff joints can make even the simplest daily activity painful for the office worker.

T F

Although a neck pain is located in neck area and upper torso, the applied therapeutic exercise program has to focus on total spinal column function!

T F

Neck and torso muscles do not activate during upright position. When the body moves away from the gravity center, these muscles do not control it against gravity

T **F**

Please check the correct answers – possibly more than one are correct!

All these wrong postures leading to:

- Muscle balances
- **Muscle tightness and muscle pain**
- **Other tissue hyper mobility**
- **Muscle pain !**

The deep torso muscles group that controls the spine when participates in any type of activity are:

- quadriceps
- **transversus abdominis**
- **lumbar multifidus,**
- **pelvic floor muscles,**
- **lumbar square,**
- **diaphragm**
- deltoid
- gastrocnemius
- biceps brachi

- triceps

The sufficient activation of the deep torso muscles group leads to unstable and without control action producing bad posture, muscle and back and neck pain

T **F**

Torso muscle groups:

- Segmental muscle or Local stability muscles: **T** F
- Kinetic muscles or Global mobility muscles: **T** F
- Extensors of the hip muscles: T **F**

Global mobility muscles function as following:

- Generate force to produce range of movement: **T** F
- Eccentric acceleration of movement : T **F**
- High load shock absorption: **T** F
- Their activity is especially phasic : **T** F
- Total inactivity in any torso movement: T **F**
- Inactivity in any torso activation: T **F**

Local Muscle System Dysfunctions as following:

Decrease in muscle stiffness and poor segmental control: **T** F

Loss of control of joint neutral position : **T** F

Transversus Abdominis: Activates after the movement of the limbs or trunk to ↑ stiffness and stability of the spine.Its activity is independent of the direction of trunk movement or limb load.

T **F**

Lumbar Multifidus: Symmetry of cross sectional area of multifidus produces back pain

T F

Global muscle dysfunction can precede and contribute to the development of pain & pathology

T F

APPLICATION OF THE THEWS PROTOCOL

NAME:

COUNTRY:

THEWS Goals :

- Increase neck and upper back pain area T **F**
- Improve muscle elasticity **T** F
- Improve muscle strength **T** F
- Achieve normal range of motion **T** F
- Decrease functional ability at the work space T **F**

THEWS types of exercise :

- Proper position's (sitting and standing) adaptation exercises **T** F
- Stretching exercises **T** F
- Strength exercises **T** F
- Functional exercises **T** F
- Total inactivity T **F**

THEWS progression:

- First, relaxation techniques. **T** F
- Next, perform positioning exercises. **T** F
- Simple strengthening exercises. T **F**
- Then, stretching exercises. T **F**
- After combination of stretching & strengthening exercises. **T** F
- Finally functional exercises in workspace. **T** F

Preparation for proper sitting position:

- Roll the pelvis forward to create a normal lumbar lordosis **T** F
- Lift the sternum, so the shoulders fall back into a neutral position **T** F

Proper sitting position : **T** F

- Tuck the chin as if making a double chin and lift the head while maintaining the chin tuck.
- Hold for 10 sec and relax. Repeat.
- Next, perform positioning exercises.

Proper standing position T **F**

- Perform pelvis tilt position in order to increase the lumbar extension and hold for 10 seconds. (Check point: The lumbar spine should be flat and touching the wall).
- Next, perform positioning exercises (Segmental muscles).