

Why Office Workers should see a Manual Osteopath?

Gelareh Saneian, DOMP.
National Academy of Osteopathy
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Abstract:

Office Worker Syndrome is not an actual syndrome, but sitting behind the computer all day have become a real issue. As our culture requires people to work certain amount of time per day, it can be understood what kind of stress it puts on the body sitting almost all the time at work. The following paper is a summary of the origins of osteopathy, principles of osteopathy and offers a clinical application of manual osteopathic treatment for office workers and problems that evolve from sitting at computer all day.

Origins of Osteopathy:

The term “osteopathy” was first used by Andrew Taylor Still in 1874 who was the founder of osteopathy and osteopathic medicine. The origin of the word is from the Greek for bone (osteon) ad suffering (pathos). As Dr. Still’s interest was to develop nature’s own ability to heal, he studied anatomy to learn the secrets held by nature’s design (Rosen, 2018). The relationship between structure and function was the first thing that Dr. Still realized after his studies. Hence, Dr. Still believed that by correcting the problems that occurs in body’s structure, the body’s capability to function and to heal itself could be improved by use of osteopathic manipulative techniques ("Manual Osteopath", 2018).

Osteopathic Principles:

The osteopathic philosophy embraces the idea of the unity of structure and function through four main principles ("Manual Osteopath", 2018).

- The body is a unit, and the person represents a combination of body, mind and spirit.
- The body is capable of self-regulation, self-healing and health maintenance.
- Structure and function are reciprocally interrelated.
- Rational treatment is based on an understanding of these principles: body unity, self-regulation, and the interrelationship o structure and function.

All parts of a body is essential; if any part of the body is not functioning well, it is detrimental to the rest of the body. Saying all that, when the body’s ability to adapt is disrupted, self-maintenance collapses (Pourgol, 2014).

Office Worker Syndrome:

The problem, from what my perspective, is that the human body is not designed to sit for couple of hours continuously. I do believe that people are active mostly in some ways every week, but activity is not the solution to this problem ("How To Avoid The “Office Worker Syndrome” – Advice From An NYC Chiropractor", 2018).

What I have found is when we are sitting for so much time during our day, our structure starts to change. This change occurs not only in your neck and shoulders, where most people start to feel the problem, but in your legs as well. When sitting down your hamstrings and adductors are in a shortened position. When you take into account the amount of time that you are sitting each day, the body will adapt to this problem. I am finding that your “hamstrings will shorten in response from sitting all day. This shortening puts a constant force acting on your hips, this force will rotate your hips posteriorly. You can see this, most people have been aware of the hip rotation for a long time. You will see it when you think you have a flat butt, it’s not due to lack of muscles, it’s due to the fact your pelvis is rotated posteriorly. This rotation will start a chain

reaction all the way up your body. First, you will find that the curve in lower back has increased, this will cause your lower back to hurt. Second, the curve that has increased in your lower back will lead your upper thorax/chest to tilt posteriorly. This will lead to your scapula/shoulder blades to function more on a pivot or point than lying flat along your thorax/upper chest. When the scapula are not functioning on an optimal surface, the muscles in the area have to compensate for the imbalance, causing the shoulder/neck pain. In my experiences, so far, treating the upper back/neck is great for symptomatic relief. If you are looking for longer lasting results, we have to address the shortening of the muscles and fascia in other regions, especially in the legs/hamstrings” (“Office Worker’s Syndrome”, 2018).

There are a lot of researches available in the internet, but very little of the information offered on this topic refers to musculoskeletal health, despite the fact that even with the ideal workstation set-up, sitting for extended periods can damage the health of our muscles, joints and nerves. Sitting in the same position for prolonged periods of time can lead to:

- Shortening of the muscles at the front of your hips and chest
- Overstretching and lengthening some muscles
- Joint stiffness
- Neck and back pain
- Shoulder stiffness or tiredness
- Headaches
- Pins and needles in hands and feet

Moreover, almost everyone that has worked in an office knows how important work ergonomics is. Almost everyone knows the pain that they get from working at the computer, for instance, headaches, sore low back, sore neck/shoulders, sore wrists, and sometimes pain/numbness that starts in your legs and goes all the way down to your feet. You start to wonder then “what do I have to do to make the pain stop?”.

Manual Osteopathy and Office Workers Syndrome:

Osteopaths treat muscle and joint pain anywhere in the body using a range of specialised hands-on techniques, including massage, joint manipulation, trigger-point therapy, stretching and exercises. They adopt a holistic approach, applying the principle that a person's well-being depends on everything in the body as one unit in which the skeleton, muscles, ligaments and connective tissues working smoothly together. They treat the whole body and not just the painful area, tackling the cause and not just the symptoms, and the overall aim is to restore the optimal functioning of the body and to ease the pain. Osteopaths assess for mobility and structural alignment of office workers. If a particular joint is restricted or a muscle is tight, a manual osteopath works to restore the full function to these structures. It is very common in people who sit at a desk all day, to have very tight shoulders as well as neck muscles. This can often lead to chronic pain and/or headaches. If any person has a problem similar to this, a manual osteopath will assess the patient with a range of osteopathic and orthopaedic tests, then using a combination of all or many of the following to treat: soft tissue release, joint mobilisation (muscle energy technique) and manipulation, stretching and indirect techniques such as counter strain, visceral and cranial osteopathy.

Osteopathic Evaluation of Office Worker Syndrome:

By this time we all know that sitting at a desk all day, or working with repetitive and continuous movements, can lead to headaches, neck and back pain or repetitive strain injuries.

Osteopaths help patients to regain energy and efficiency by addressing the many factors that contribute to the overall health of the patient by providing advice on exercise, nutrition and workplace posture.

Office workers performing repetitive movements, or those people who use a mouse repetitively, may sometimes experience elbow or wrist pain, often identified as ‘tennis elbow’ or ‘golfers elbow’ in the forearm and elbow region.

Pain in the elbow is often due to either *tennis elbow* and/or *golfer’s elbow*. Tennis elbow causes pain and tenderness around the outside of the elbow joint, while golfer’s elbow causes pain around the inner side of the joint. Having said that, it is important to know that pre-existing problems with the neck, wrist or shoulder, that might not be painful in themselves at the time, can make it more likely for the patient to experience with tennis or golfers elbow. Manual osteopath practitioners can use a variability of different soft tissue therapy, manipulation technique and muscle energy technique to try to ease patient’s symptoms. Other treatments to be done could be mentioned as icing, taping, bracing, exercise and resting.

Another common problem is called *Thoracic Outlet Syndrome*. Thoracic outlet syndrome is when the blood vessels and nerves that are coming from the neck to your arm, can get condensed in the shoulder area; due to poor postural alignment, tight muscles and restricted joints. This can cause pain and numbness down the arm and into the hands. Moving forward to treat this syndrome, the practitioner can help the patient by restoring mobility to the first rib to increase the costoclavicular space. Mobilization of the sternoclavicular joint (SCJ) and acromioclavicular joint (ACJ) is necessary to restore elevation (shrugging of the shoulder) activities. Additionally, end-range limitations of glenohumeral motion can lead to co-operation of the costoclavicular space. These limits can be addressed with mobilizations in the elevated arm, shrugging, position. The humerus can be glided in different directions such as anterior, posterior and inferior direction, respecting the orientation of the glenoid (Hooper et al. 2010) (7).

Lastly, other common problem that is seen in people under stress at work is *TMJ (Temporo-Mandibular Joint) Dysfunction*. This presents as very tight jaw muscles, difficulty chewing or opening the jaw due to pain and restriction, as well as possible headaches. Specific assessment and treatment to the neck, jaw and cranio-facial bones can be very helpful in this condition. This includes techniques for the soft tissues, including the muscles, ligaments and fascia, as well as specific techniques to release tensions at the articulations of the neck, cranial and facial bones, as well as the temporo-mandibular joints (TMJ). This may contain the manual practitioner doing gentle stretches and mobilizations inside of the mouth to reach deeper structures.

History:

The osteopathic evaluation of the client begins with a history consultation. The role of the practitioner is to determine the exact nature of complaint by duration, pain location, severity, and associated symptoms. When conducting the consultation, the practitioner will include appropriate and necessary questioning to make a complete history.

An example of history taking form can be seen in the following page:

PRACTITIONER _____

Date _____

Name: _____ Birth ___/___/___

Email: _____ (_____) _____

Occupation/Work _____

Reason for Visit (**major complain**) _____

Pain location _____

When did your symptoms appear? _____

Is this condition getting worse, constant or come and go?

Pain referral: *numbness, tingling, discomfort* _____

Rate the severity of your pain 1 (least pain) to 10 (severe pain) _____

Type of pain: Sharp Dull Achy Shooting Burning Cramps
 Stiffness Swelling Slight Acute Chronic Muscle Nerve

How often do you have this pain? _____

Activities or movements that are painful to perform Sitting Standing
 Walking Bending Lying Down Exercise Every day chart

Relieve factors? _____

Does it interfere with your Work Sleep Daily Routine
recreation exercise _____

Work Activity: Sitting Standing Light Labour Heavy Labour
 Mixed repeating movement if yes which kind _____

How long being working there _____

What treatment have you received for your condition?

Surgery Physio Therapy Osteopathy Medications
 Chiropractic Massage Therapy / How many _____

Exercise: None 3/week Moderate Daily Heavy _____

Which kind exercise? gym jogging yoga Other _____

Drinks water/day: _____ High Stress Level Reason _____

X-ray yes no Arthritis Osteoporosis
Asthma Constipation/Diarrhea Headaches/Migraines Insomnia

Past History Cancer Heart disease diabetes High Blood pressure

Observation:

Visual observation of the client is another aspect of the osteopathic evaluation. This begins from the moment that the practitioner sees the patient. What type of gait is he obtaining while entering to the room? What posture are they obtaining while standing or sitting on the chair? Do they walk with a limp, how pronounced is it? Do they lean to one side? Once you're in the room, you're still observing their movements. Are they tired, nervous, etc.?

It should be noted patients can adapt their gait according to the situation, so observing is preferably done from the sitting room to examination, or you can ask the patient for a walk. Therefore, going through different visual examination, can be a good start:

- Overall posture- any obvious abnormality
- Symmetry
- Flat feet
- Any noticeable rotational issues
- Any lateral bending

Osteopathic examination:

After considering visual observation of the patient, it is very important to actually feel the body itself and where exactly the pain is located. This is what we call "palpation". Osteopathic examination, palpation, is an important part of the physical examination; the sense of touch is just as important in this examination as the sense of sight is. Palpation might be used to determine painful areas and to qualify pain felt by patients.

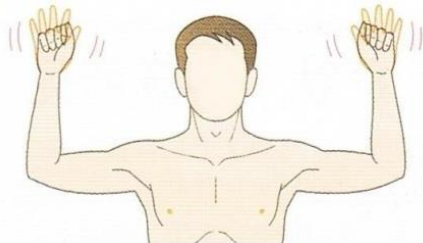
In summary, palpation helps the practitioner, to locate any tightness, tenderness, spasm or pain referral by the patient.

Orthopaedic tests:

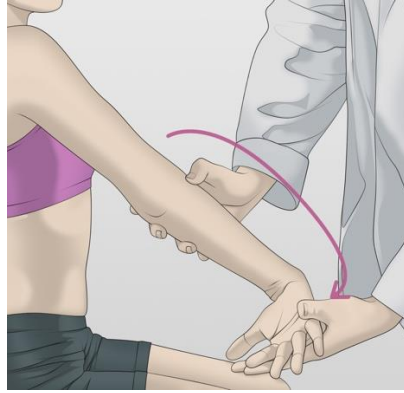
There are many physical tests, or "orthopaedic tests", that are used by clinicians in physical therapy, orthopaedics in general, chiropractors, and manual osteopath practitioners during a physical examination. These tests are used to rule in or out specific musculoskeletal problems. They assist in the differential diagnosis of orthopedic conditions and injuries. There are many such clinical orthopedic tests that target the various regions of the body and many tissue types including connective tissue, muscles, nerves and bone.

Example of orthopaedic test that can be used for office workers are listed as:

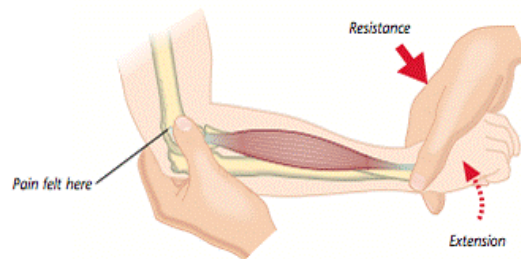
- Three-Knuckle test- this orthopaedic test is used for Temporomandibular Joint dysfunction; testing for the available active range of depression of the mandible or TMJ hypomobility.
- Roos test/ Elevated Arm Stress Test- this orthopaedic test is used for Thoracic Outlet Syndrome; testing for the presence of neural or vascular compromise in the thoracic outlet.



- Mill's test- this orthopaedic test is used for testing for presence of a lateral epicondylalgia (6).



- Golfer's Elbow test- this orthopaedic test is used for testing for presence of a medial epicondylalgia (6).



Treatment plan:

Putting all of the subjective and objective data collected, now the manual osteopath practitioner may begin making clinical decisions and formulate a treatment plan. This may include mobilization, muscle energy technique (MET), soft tissue therapy (STT), visceral techniques, cranial sacral techniques, and more. Osteopathic manual treatment can address all body systems and tissues to determine the source of pain and dysfunction. This is a safe, effective and gentle form of treatment for people of all ages and stages.

Manual osteopathy treatment can benefit individuals with:

- Headaches & migraines
- Muscle and joint pain
- Neck and back pain
- TMJ dysfunction (jaw pain)
- Emotional distress and anxiety

At the end of each visit, the practitioner then recommends the patient of how many sessions is suggested for following up visit schedule with the goal of maximum improvement (Pourgol, 2014).

Now, after each treatment it is important to look for improvements during palpation of tissue, range of motion and pain. Having said that, for example if after 2 treatments, the practitioner sees no improvement at all, it is mandatory upon the practitioner to change a method of treatment. If improvement occurs, remain with the same method of treatment until it is fully effective. Carry on with this pattern of treatment until correct range of motion for that individual returns without pain or you have been treating for 5-6 months. If pain continues for 3 months refer to primary care provider for further evaluation. If you have reached the 5-6 month mark after continual treatment change with no improvement, then maximum medical improvement has

been reached and treatment should be stopped. It is at this point in the care of the patient that the practitioner can refer him to another health practitioner for further evaluation and treatment.

Conclusion:

Coming into conclusion, we can say that osteopathy is a gentle and manual approach to help people manage the physical stress office environments put on their body. Prolonged postures, especially sitting leads to damaging the joints and muscles, as well as muscular imbalances and overall tension. For those people who spend long hours behind a computer or desk, these stresses may lead to significant pain and discomfort. Sitting at a desk for long hours of work puts office workers at a high risk for a numerous painful conditions and these include back pain, neck pain, wrist pain, stress, anxiety and fatigue. Hence, manual osteopathy practitioners are able to assist all these conditions by decreasing pain, improving joint mobility and decreasing ligamentous strain, decreasing muscle tension, as well as improving blood circulation and more.

A manual osteopath treats with hands using a wide variety of treatment techniques intended at improving joint mobility, reducing muscle spasm, reducing muscle tightness, and decreasing inflammation. This improves patient's function, helps fast and effective healing and reduces pain. Osteopathic treatment always takes into account the body as a whole, whether it is working together smoothly or if some mechanisms are not working properly. Treatment includes a variety of stretching, mobilization, muscle energy techniques, soft tissue massage, traction as well as the use of ultrasound where appropriate.

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