

# Newsletter

August 2019

brought to you by:

**workforce**  
healthcare  
Helping you help your employees

## Family Planning and Lungs

“ PLANNING IS BRINGING THE FUTURE INTO THE PRESENT SO THAT YOU CAN DO SOMETHING ABOUT IT NOW ”

MIKE ADAMS



### Family Planning

WFHC's on-site clinic services are preventative in nature, hereby making family planning available to all women as they don't have to take off time from work to go to a local clinic. This reduces the rate of absenteeism which also makes employers happy.

In essence, I am proud that we play a role in the fostering of women's rights. Ladies that have access to our onsite clinics are not hindered when making the decision as to when they are ready to start their family. They don't have to take time off work or be inconvenienced if they would like to make use of this service.

### The lungs and TB

A few months ago, I discussed TB in our country. TB of the lungs is a massive problem, I won't dwell on it now, but lung disease is a big risk in a dusty environment, especially if the dust contains silica, asbestos or dangerous chemicals.

It is the responsibility of the Health and Safety committee and Management to identify risks at the work place, so if employees are exposed to dust / chemicals, a risk assessment must be conducted by a hygienist who will report on the risk to management.

If there is a risk, a medical surveillance programme must be implemented which will include the reduction of exposure to the employee (employees must be compliant by wearing protective equipment) as well as the monitoring of the employee's lung function, or chest x-rays if indicated by the Occupational Medical Practitioner, ensuring employees lungs are not damaged by the work environment.



# FAMILY PLANNING

Written by Bonita Gervais of Workforce Healthcare

## Birth Control and Family Planning

Family planning is one of the most cost-effective health interventions as it prevents unintended pregnancies and can, depending of the method used, also help prevent the transmission of sexual transmitted diseases including HIV/AIDS.

**When selecting a suitable birth control method here are a few questions to discuss with your significant other and your healthcare provider:**

1. Would an unplanned pregnancy create hardship?
2. Would an unplanned pregnancy create distress in yourself or your significant other life's?
3. Would a pregnancy be welcome should it happen unplanned?
4. What are the health risks?

**There are many birth control methods that prevent unwanted pregnancies, including:**

- **Condoms**  
Male and female condom are made of a thin latex or polyurethane sheath. The male condom is placed on a erect penis and a female condom is placed inside the vagina before intercourse. Using condoms is a very convenient method of preventing pregnancy and sexually transmitted diseases as a prescription is not required. You can obtain condoms from family planning clinics, pharmacists or grocery stores countrywide.
- **Barrier method**  
Diaphragms and cervical caps fit over the cervical opening preventing sperm from entering the uterus. A prescription is needed by a medical practitioner to determine the correct type and size.
- **Hormones stimulate birth control**  
The pill – comes in tablet form and contains both estrogen and progestin or only progestin;  
Implants – this is a small rod implanted beneath the skin that release a continuous dose of hormones that prevent ovulation;  
The injection – is given every three months into the muscle of the upper arm or buttock and prevents ovulation;  
The skin patch – is placed on the shoulder, buttocks or upper arm and releases a continuous dose of hormones to prevent ovulation;
- **Permanent methods of birth control**  
Permanent methods are for men and women who are certain that they do not want to have any children or more children in the future.

### For males - Vasectomy

A vasectomy is a procedure that ensures that a man is unable to impregnate a woman permanently. The procedure involves cutting or blocking two tubes, called the vas deferens, so that sperm can no longer reach the semen.

### For females - Tubal Ligation

Tubal ligation is often referred to as having one's "tubes tied" or female sterilization. After this procedure has been performed, an egg cannot move from the ovary through the Fallopian tubes and into the uterus and so cannot be fertilised. It also blocks sperm moving up the fallopian tubes to the eggs. This procedure doesn't affect the female menstrual cycle.

The vasectomy and tubal ligation procedures are reversible if pregnancy is desired at a later date but the success rate is not very high and the surgery is not simple.

“ YOURS LIFE DOES NOT GET BETTER BY CHANCE, IT GETS GETTER BY CHANGE ”

JIM ROHN



# YOUR LUNGS

Written by Bonita Gervais of Workforce Healthcare

Each of us have a set of two lungs. A person's lungs are not the same size, the right lung tends to be bigger, wider and shorter than the left. The lungs are situated within the thoracic cavity of the chest, sitting either side of the heart. The lungs are conical in shape with a narrow round apex at the top. The lungs are part of the lower respiratory tract that begins at the trachea and then branches out into the bronchi and the bronchioles. The lungs receive air that we breath via the conducting zone.

Breathing seems simple but is quite a complexed process. When a person breathes, air travels down the throat and into the trachea also known as the windpipe. The trachea/windpipe divides into bronchial tubes which go into each lung that then branch out into smaller bronchioles which have air sacs called alveoli. The alveoli have many capillary veins and oxygen passes through the alveoli into the capillaries and then into the blood stream, carrying oxygen to the heart and then throughout the whole body into all tissues and organs.

Oxygen goes into the bloodstream and carbon dioxide passes from the blood into the alveoli and then makes its way out of the body.

The lungs are protected by cilia which are very small hairs that line the bronchial tubes. The cilia wave back and forth spreading mucus into the throat. Mucus cleans the lungs of dust, germs and any other unwanted foreign body that ends up in the lungs.

## Occupational Hazards in the Workplace

Substances you breathe in at work can cause lung irritation. Workers who are exposed to occupational hazards in the air such as dust from coal, silica, asbestos, raw cotton, metal fumes or chemical vapors are in danger of developing lung disease.

## Preventing occupational respiratory disease in the workplace

Depending on workers job description, workers might not be able to avoid occupational respiratory disease, but exposure to diseases can be reduced significantly by following company policies and recommendations which are listed below:

- Wear a mask;
- Increase ventilation in work area;
- Use a respirator. This is a device that covers your nose and mouth. It cleans the air before it enters your body;
- Know and follow workplace safety precautions and first-aid processes.

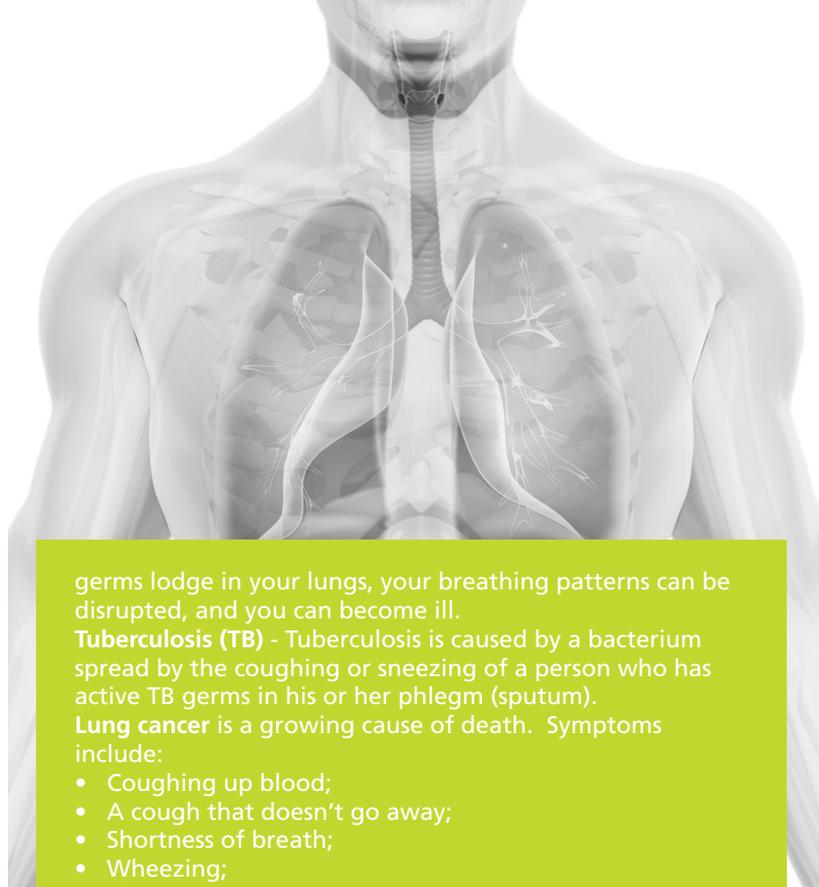
Workplaces should have programmes in place to monitor and limit exposure. Medical surveillance screening should be done annually to ensure that workers who are exposed to hazards in the workplace are identified and treated according to exposure and risk assessments.

## Conditions that affect the lungs

**Asthma** also called reactive airway disease cause the airways in the lung to become inflamed and narrowed making it hard to breath.

Asthma, the temporary blocking of the small passages of the lungs, has many possible triggers and can be life-threatening. Infections, lung irritants, cold weather, allergies, overexertion, excitement, inherited factors, even workplace chemicals and other irritants, play a role in this disease.

**Lung infections** that are caused by viruses, fungal organisms and bacteria are bronchitis or pneumonia. Hundreds of germs like these are carried in the air at all times. If they are inhaled into the lungs, the germs can cause colds, influenza, pneumonia, and other respiratory infections. When these



germs lodge in your lungs, your breathing patterns can be disrupted, and you can become ill.

**Tuberculosis (TB)** - Tuberculosis is caused by a bacterium spread by the coughing or sneezing of a person who has active TB germs in his or her phlegm (sputum).

**Lung cancer** is a growing cause of death. Symptoms include:

- Coughing up blood;
- A cough that doesn't go away;
- Shortness of breath;
- Wheezing;
- Chest pain;
- Headaches;
- Hoarseness;
- Weight loss; and
- Bone pain.

Chronic obstructive pulmonary disease (COPD) is a lung disease that prevents a person from breathing properly due to excess mucus or degeneration of the lung. Chronic bronchitis and emphysema are considered to be COPD diseases.

Being overweight can also affect the lungs as it increases the work and energy expenditure to breath.

## Tests

Pulmonary plethysmographs are used to measure functional residual capacity of the lung.

The spirometry test measures lung function by evaluating the amount of air that can be inhaled and exhaled. The maximum volume of breath that can be exhaled is called the vital capacity, (how much a person can exhale in one second). Not all air is expelled in a breath, the remainder of air that stays behind in the lungs is called the residual volume. It is important to distinguish whether a lung disease is restrictive or obstructive. The lung diffusing capacity is another test that measure the transfer of gas from the air to the blood in the lung capillaries.

## Promoting healthy lungs

The best way to promote good healthy lungs is to avoid cigarette smoke as 70 out of 7000 chemicals in cigarette smoke are known to damages cells within the lungs. Persons who smoke are at the greatest risk of developing lung cancer. You can also help look after your lungs by bringing your BMI under control.

## Treatment

For lung infections antibiotics are given but for COPD patients lung transplants are normally performed by replacement lungs harvested from organ donors. These procedures save lives.

Research is also being done into using stem cells that grow news lungs. Currently, stem cells are extracted from the patient's own blood or bone marrow and used to heal damaged lung tissue.



## References

### Family Planning

<https://medlineplus.gov/ency/article/001946.htm>

<https://www.mayoclinic.org/tests-procedures/tubal-ligation/about/pac-20388360>

### Lung

<https://www.livescience.com/52250-lung.html>

<https://sk.lung.ca/protect-your-lungs/keep-your-lungs-healthy/common-lung-hazards>

<https://familydoctor.org/condition/occupational-respiratory-disease/>