

# HEALTH & HYGIENE

## Disease & Prevention

# DEFINITIONS-

- Miriam-Webster calls **Disease-**
- a condition of the living animal or plant body or of one of its parts that impairs normal functioning and is typically manifested by distinguishing signs and symptoms
- Sickness- a disordered, weakened, or unsound condition

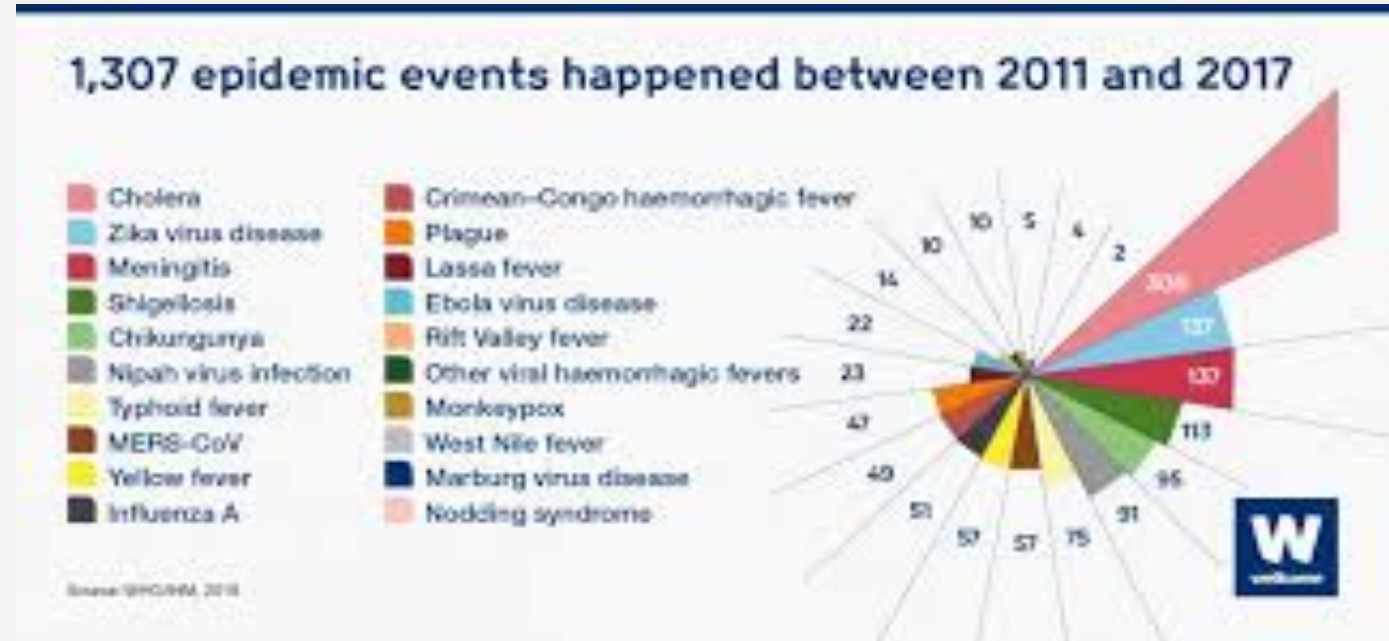


## **DEFINITIONS-**

- **Cambridge Dictionary calls Disease-**
- (an) [illness](#) of [people](#), [animals](#), [plants](#), etc., [caused](#) by [infection](#) or a [failure](#) of [health](#) [rather](#) than by an [accident](#)
- **Traditional Chinese Medicine breaks it down simply as-**
- A Dis-Ease of or lack of ease or health in the body resulting in stagnation or the free flow of Qi and blood.

# DEFINITIONS-

- Epidemic-
- Affecting or tending to affect a disproportionately large number of individuals within a population, community, or region at the same time.
- (America and most of Planet Earth has a flu epidemic yearly)



## **DEFINITIONS-**

- **Epidemic-**
- A disease can be declared an *epidemic* when it spreads over a wide area and many individuals are taken ill at the same time.
- If the spread escalates further, an epidemic can become a *pandemic*, which affects an even wider geographical area and a significant portion of the population becomes affected.

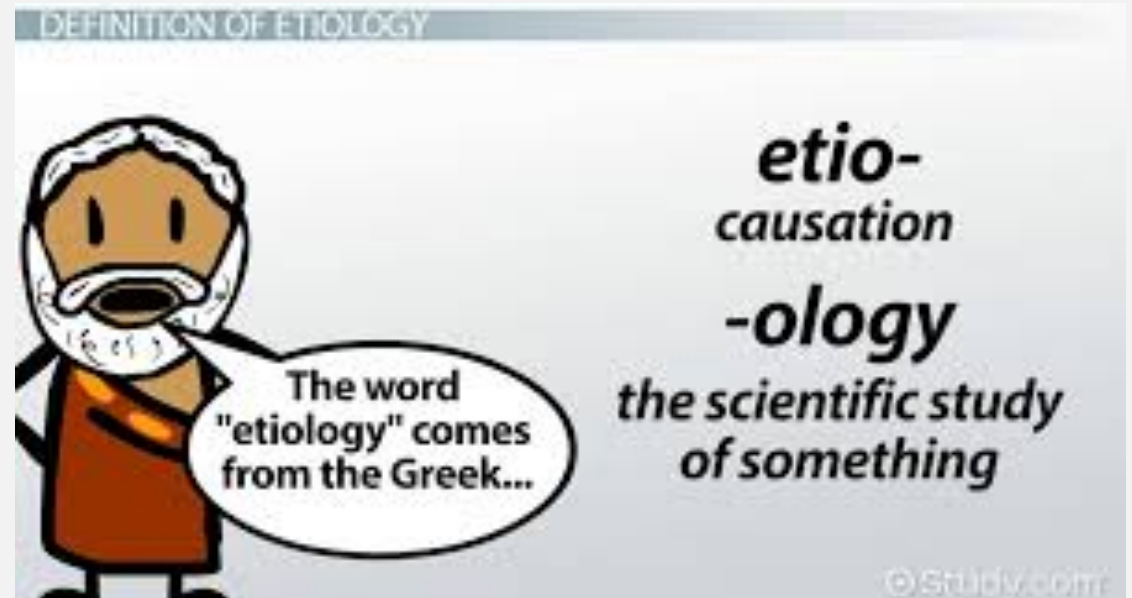
# DEFINITIONS-

- Pandemic-
- occurring over a wide geographic area and affecting an exceptionally high proportion of the population



# DEFINITIONS-

- Etiology-
- 1: [CAUSE](#), [ORIGIN](#)
- *specifically* : the cause of a disease or [abnormal](#) condition
- 2: a branch of knowledge concerned with causes
- *specifically* : a branch of medical science concerned with the causes and origins of diseases



# **DEFINITIONS-**

- **Epidemiology-**
- the branch of medicine which deals with the incidence, distribution, and possible control of diseases and other factors relating to health
- Since the terms Disease and Disease Prevention can be addressed on an incredibly wide and varied scope, we will narrow our conversation to the basics and look at how you can keep you and your clients safe when performing massage.
- Etiology and Epidemiology are very interesting subjects and we invite you to find out more.



# ORIGINS OF DISEASE- HISTORY-EARLY HUMANS



Ten thousand years ago humans were hunter-gatherers.

# ORIGINS- HISTORY-EARLY HUMANS

- They had a short life span, but not because of epidemics; their primary problem was just finding enough food to eat.
- They lived and traveled in small groups and hunted and foraged for food.
- Their mixed diet was probably fairly balanced and nutritionally complete. Since they lived in small groups and moved frequently, they had few problems with accumulating waste or contaminated water or food.



# ORIGINS- HISTORY-EARLY HUMANS

- The shift from the hunter-gather mode of living to an agricultural model provided a more secure supply of food and enabled expansion of the population.



- However, domesticated animals provided not only food and labor; they also carried diseases that could be transmitted to humans.
- People also began to rely heavily on one or two crops, so their diets were often lacking in protein, minerals, and vitamins.

# ORIGINS- HISTORY-EARLY HUMANS

- People began living in larger groups and staying in the same place, so there was more opportunity for transmission of diseases.
- Garbage and waste accumulated, and rodents and insect vectors were attracted to human settlements, providing sources of disease.



## **FIRST RECORDED DISEASE?**

- In 2014 A University of Texas Houston study found two leprosy-causing bacteria's came from a common bacterial ancestor around 10 million years ago.
- Humans carried leprosy bacteria when departing Africa around 100,000 years ago to populate the rest of the world
- Hundreds of thousands of people around the world still suffer from the disease, which attacks a sufferer's skin and nerves

## FIRST RECORDED DISEASE?

- Leprosy is a disease that has been known *since biblical times*. It causes nerve damage and muscle weakness that can lead to deformities, crippling, blindness and isolation.
- **Every two minutes** someone is diagnosed with leprosy. Many Americans think leprosy no longer exists, but it still occurs in more than 100 countries worldwide.



## FIRST RECORDED DISEASE?



# THE BUBONIC PLAGUE (1347-1700S)

- [Bubonic plague](#) is an acute infectious disease caused by the bacterium *Yersinia pestis*. The bacteria live in the intestines of fleas and are transmitted to rats by flea bites.





# THE BUBONIC PLAGUE (1347-1700S)

- Occasionally, an infected flea would jump to a human and introduce the bacteria when a blood meal was taken.
- The bacteria would then spread to the regional lymph nodes and multiply, causing dark, tender, swollen nodules (buboes), for example, a walnut-sized swelling in the inner aspect of the upper thigh.
- As the infection spread, the victim would experience headache, high fever, delirium, and finally death in about 60% of cases.



# THE BUBONIC PLAGUE (1347-1700S)

- Starting in 1347, Europe experienced multiple waves of bubonic plague epidemics that lasted until the late 1700s.
- It is believed that the bubonic plague originated in Asia and traveled along trade routes into the Black Sea and then into the Mediterranean Sea.
- From there, it swept through Sicily and Italy and then up through France and the northern European countries all the way up into Scandinavia.
- There were many subsequent waves of plague that swept through Europe until the late 1700s.



# TYPHOID(MARY MALLON)



## TYPHOID-MARY MALLON (1869-1938)

- Mary Mallon was born in 1869 in Ireland and emigrated to the US in 1884. She had worked in a variety of domestic positions for wealthy families prior to settling into her career as a cook.
- As a healthy carrier (Asymptomatic) of *Salmonella typhi* her nickname of “Typhoid Mary” had become synonymous with the spread of disease, as many were infected due to her denial of being ill.



## TYPHOID-MARY MALLON (1869-1938)

- No one ever attempted to explain to Mary the significance of being a “carrier”, instead they had offered to remove her gallbladder, something she had denied.
- A post mortem revealed that she shed *Salmonella typhi* bacteria from her gallstones raising the issue of what would have happened if she had accepted the proposed operation.





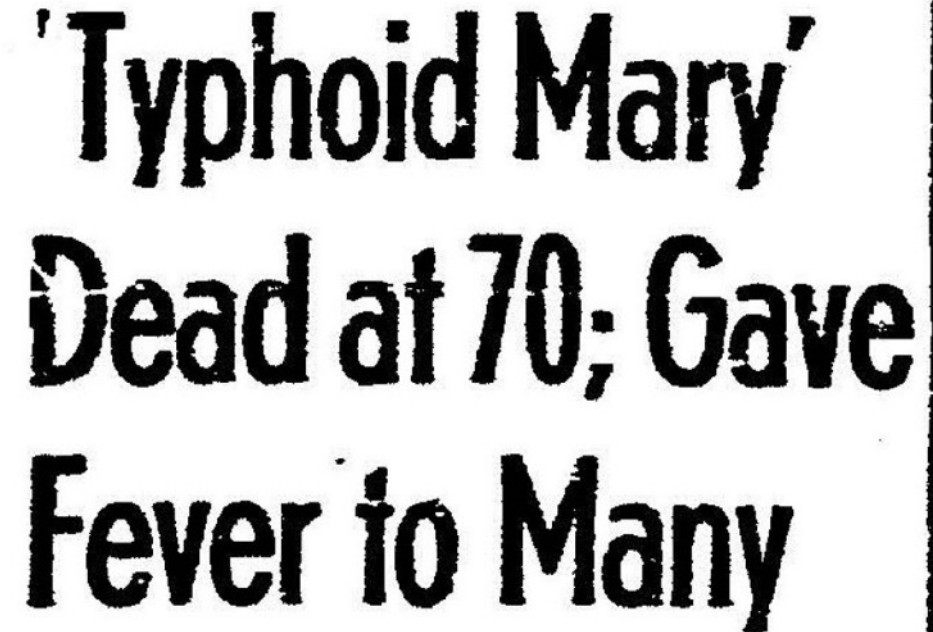
## TYPHOID-MARY MALLON (1869-1938)

- She was forced into quarantine on two separate occasions on North Brother Island off of Manhattan for a total of 26 years and died alone without friends, having evidently found consolation in her religion to which she gave her faith and loyalty.



## TYPHOID-MARY MALLON (1869-1938)

- In 1907, about 3,000 New Yorkers had been infected by *Salmonella typhi*, and probably Mary was the main reason for the outbreak. Immunization against *Salmonella typhi* was not developed until 1911, and antibiotic treatment was not available until 1948



**'Typhoid Mary'  
Dead at 70; Gave  
Fever to Many**

A black and white photograph of a newspaper clipping. The headline is in a large, bold, serif font. The text is arranged in three lines, with the first line being the most prominent. The clipping is set against a light background.

## TYPHOID-MARY MALLON (1869-1938)

If Mary Mallon would have washed her hands diligently (most at this time did not) she may have never infected anyone...

**Do you see a trend here?**



# **BEFORE CURES THERE WAS** **QUARANTINE-**

- Quarantine-
- 1: a period of 40 days
- 2: a term during which a ship arriving in port and suspected of carrying contagious disease is held in isolation from the shore
- b: a regulation placing a ship in quarantine c: a place where a ship is detained during quarantine
- 3: a restraint upon the activities or communication of persons or the transport of goods designed to prevent the spread of disease or pests
- b: a place in which those under quarantine are kept
- 4: a state of enforced isolation

## BEFORE CURES THERE WAS QUARANTINE.

- The use of quarantine as a public health measure dates back to the 14th century.
- Quarantine comes from the Italian *quarantena*, meaning forty-day period. Travelers and merchandise that had potentially been exposed to disease were isolated for a period of time to ensure that they weren't infected.
- Some cities and towns would create a "cordon sanitaire," a physical barrier that could only be crossed with permission. This practice persisted into the late 19th century and early 20th century.



## **BEFORE CURES THERE WAS QUARANTINE-**

- While quarantine is one of the oldest public health measures, it is still useful today.
- During the SARS epidemic (2003), Toronto quarantined individuals who had potentially been exposed by confining them to their homes until it was certain that they weren't infected.
- This measure was effective in controlling SARS because individuals infected with SARS were not infectious until they began to exhibit symptoms.
- Consequently, if an individual was possibly exposed, but did not yet show symptoms, quarantine prevented them from infecting others.

## **BEFORE CURES THERE WAS QUARANTINE.**

- However, quarantine is less useful for diseases like influenza, or COVID19 when an infected person can spread the disease even before they begin having symptoms.

# VACCINES-



- A substance used to stimulate the production of antibodies and provide immunity against one or several diseases, prepared from the causative agent of a disease, its products, or a synthetic substitute, treated to act as an antigen without inducing the disease.

# VACCINES-

- At the beginning of the 20<sup>th</sup> century, infectious diseases such as smallpox, measles, diphtheria, and pertussis were widely prevalent.
- Since there were few effective measures available, death tolls were high.
- Both the development and promotion of vaccinations against preventable diseases has resulted in dramatic declines in morbidity and mortality and even results in the eradication of smallpox.



## DISEASE PREVENTION- (ITS IN YOUR HANDS)

- The leading causes of death in 1900 were pneumonia, tuberculosis (TB), and diarrhea and enteritis whereas in 1997, 4.5% of deaths were attributable to pneumonia, influenza, and HIV infection.
- Sanitation and hygiene, vaccination, and antibiotics are among the control measures responsible for this marked decrease.
- **Who knew hand washing could be so powerful!**

## **AGENCIES-CDC-(CENTER FOR DISEASE CONTROL)**

- Established July 1, 1946 the Communicable Disease Center (CDC, now known as the Center for Disease Control) opened its doors and occupied one floor of a small building in Atlanta.
- Its primary mission was simple yet highly challenging: prevent malaria from spreading across the nation. With only a budget of only \$10 million budget and 400 employees.
- Medical epidemiologists were scarce in those early years, disease surveillance became the cornerstone of CDC's mission of service to the states and over time changed the practice of public health.



## **AGENCIES-CDC-(CENTER FOR DISEASE CONTROL)**

- There have been many significant accomplishments since CDC's humble beginnings.
- Today, CDC is one of the major operating components of the Department of Health and Human Services and is recognized as Americas premiere health promotion, prevention, and preparedness agency.
- Visit: [www.cdc.gov](http://www.cdc.gov)



# **AGENCIES-**

- **Department of Health and Human Services-**
- In 1979 the Department of Education split from HEW, and the Department of Health and Human Services was formed.



## **AGENCIES-THE WHO- (WORLD HEALTH ORGANIZATION)**

- **The WHO- (World Health Organization)**
- When the United Nations was formed in 1945, one of the mandates discussed was creating a global health organization.
- WHO's Constitution came into force on 7 April 1948 – a date now celebrated every year as World Health Day.



## **AGENCIES-THE WHO- (WORLD HEALTH ORGANIZATION)**

- WHO, adheres to the UN values of integrity, professionalism and respect for diversity.
- Their mission is to promote health, keep the world safe and serve the vulnerable, with measurable impact for people at country level. We are individually and collectively committed to put these values into practice.
- The WHO has been on the frontline of every health related outbreak on Planet Earth since 1948.
- [www.who.int](http://www.who.int)

## DISEASE & PREVENTION



Q&A

## DISEASE & PREVENTION

- This is the end of Class A

## DISEASE & PREVENTION

- 15 Min. Break

## DISEASE & PREVENTION

- Class B



# COVID BASICS

2020-2021

## COVID BASICS

- First and foremost it is important to remember, COVID19 is still in its infancy.
- In the days, weeks, months and even years to come scientists will continue to learn and understand more about this disease and how it will continue to impact the world.
- So it is important to know some of the information presented here will most likely change as time goes by.

## OUR WORLD AND COVID19 (THE ECONOMY OF RISK)

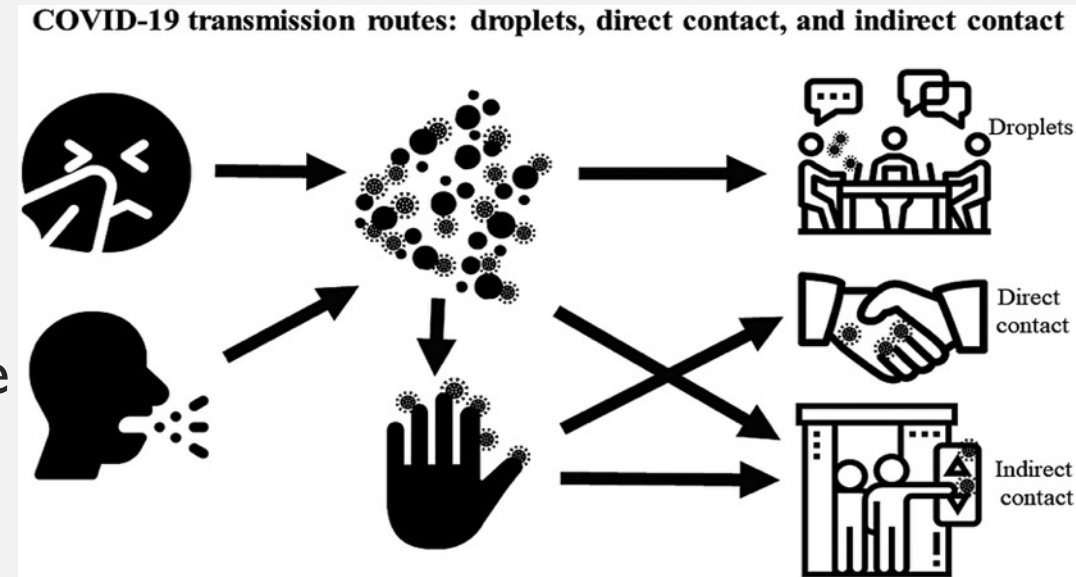
- As the scientists try to crack the code of the COVID19 pandemic, the world (as it has in history, and the flu of 1918),
- it is important to be mindful if you are venturing out.

## **THE BASICS-**

- There is currently no vaccine to prevent coronavirus disease 2019 (COVID-19).
- The best way to prevent illness is to avoid being exposed to this virus.
- The virus is thought to spread mainly from person to person
- Between people who are in close contact with one another (within about 6 feet)

# THE BASICS-

- It can be spread through respiratory droplets produced when an infected person coughs, sneezes or talks.
- (This is why masks are important and CAN protect you.) CONTAINMENT.
- These droplets can land in the mouths or noses of people who are nearby or possibly be inhaled into the lungs.
- Some recent studies have suggested that COVID-19 may be spread by people who are not showing symptoms.



## THE BASICS-

- If airborne transmission is a significant factor in the pandemic, especially in crowded spaces with poor ventilation, the consequences for containment could be significant. We have lowered our class size and changed our ventilation methods and added new levels of air purification, including Ozone and Ion floods during closing hours.
- Masks may be needed indoors. We already require it

# THE BASICS- WASH YOUR HANDS OFTEN

- Wash your hands often with soap and water for at least 20 seconds especially after you have been in a public place, or after blowing your nose, coughing, or sneezing.
- If soap and water are not readily available, use a hand sanitizer that contains at least 60% alcohol. Cover all surfaces of your hands and rub them together until they feel dry.
- Avoid touching your eyes, nose, and mouth with unwashed hands.



## **THE BASICS- WEAR A MASK-**

- Cover your mouth and nose with a cloth face cover when around others. Here at TLC all who enter the building are required to wear a mask that we provide or approved as safe.
- Wearing a mask in a pandemic is the kindest, most respectful thing you can do for another that might be at risk.
- It has been shown that wearing a face covering in public spaces and in close contact with others can mitigate risk greatly
- **According to The Centre of Evidence Based Medicine-**
- Standard surgical masks are as effective as respirator masks (e.g. N95, FFP2, FFP3) for preventing infection of healthcare workers in outbreaks of viral respiratory illnesses such as influenza.
- **This is what you are wearing right now.**





## **THE BASICS- CLEAN AND DISINFECT SURFACES**

- Clean AND disinfect frequently touched surfaces daily. This includes tables, doorknobs, light switches, countertops, handles, desks, phones, keyboards, toilets, faucets, and sinks.
- If surfaces are dirty, clean them.
- Use detergent or soap and water prior to disinfection.
- Then, use a household disinfectant including at least 70% alcohol. (TLC uses a 90% solution for disinfecting most surfaces)



## **THE BASICS- CLEAN AND DISINFECT SURFACES**

- TLC will have fulltime staff, literally cleaning and disinfecting before the building opens, during the course of the day and after we have closed daily.
- BUT! That doesn't mean you shouldn't be vigilant in your own areas and wiping behind you. The more WE all do the less risk.



## THE BASICS- LIVE AND WORK IN WELL VENTILATED OR AREAS OF PURIFIED AIR-

- If you have lots of windows to have opened after working with clients or having meetings. Or utilizing Air purifier units that capture .03 microns of air particles it can help protect you and others that come into the environment.
- Another excellent method of staving off all airborne contagions is to flood a room with Ions & Ozone when you, clients or pets are not in the area. TLC does this between the hours of Midnight and 5am daily.





## THE BASICS- IMMUNE SUPPORT

- Don't Smoke
- Eat a diet high in fruits and vegetables.
- Limit your white sugar intake
- Limit Dairy intake
- Exercise regularly.
- Maintain a healthy Weight
- If you drink alcohol, drink only in moderation.
- Get adequate sleep.
- Take steps to avoid infection, such as washing your hands frequently and cooking meats thoroughly.



## **THE BASICS- AND FOR NOW AT LEAST** **PRACTICE THE ECONOMY OF RISK?**

- Just for the time being...
- Wear a mask.
- Stay out of large crowds, bars, nightclubs, especially if they are not masked spaces. You've got others in your life that could be at risk. At home, work, school. Everywhere. Being mindful now, will mitigate the danger to you and others.
- It really comes down to priorities and everyone has their own. But might it be our responsibility as fellow human beings to be economic in how we approach our interactions with others?
- At least for now?
- Would that be wrong?



**THE BASICS- AND FOR NOW AT LEAST**  
**PRACTICE THE ECONOMY OF RISK?**

Wearing a mask shows...



Kindness

# PPE (PERSONAL PROTECTION EQUIPMENT)-

- Masks
- Gloves
- Disinfectants





## **PPE (PERSONAL PROTECTION EQUIPMENT)-**

- All of these are readily available to you and everyone who steps into our doors.

# COVID BASICS

Questions??

# PPE- VIDEOS

- [How to wear Masks](#)
- [How to wear gloves](#)
- [How to do post session clean up](#)
- [How to wash your hands](#)

# DISEASE PREVENTION

- Disease prevention, understood as specific, population-based and individual-based interventions for primary and secondary (early detection) prevention, aiming to minimize the burden of diseases and associated risk factors.



# DISEASE PREVENTION

- Primary prevention refers to actions aimed at avoiding the manifestation of a disease:
  - - Improving general health
  - - Determining Health Risks
  - - Nutritional and food supplementation
  - - Immunization and vaccination of children, adults and the elderly
  - - Dental hygiene education



# DISEASE PREVENTION

- Secondary prevention deals with early detection when this improves the chances for positive health outcomes:
  - - Early detection
  - - Preventive drug therapies
  - - As well as the areas of mental health, injury prevention, drug abuse control, alcohol control, health behavior related to HIV, and sexual health.



# DISEASE PREVENTION

- Disease prevention and health promotion share many goals, and there is considerable overlap between functions.
- On a conceptual level, it is useful to characterize disease prevention services as those primarily concentrated within the health care sector



# DISEASE PREVENTION

- Health promotion services as those that depend on intersectoral actions and/or are concerned with the social determinants of health.





## **DISEASE PREVENTION**

- **Where does Disease Prevention and Health Promotion intersect?**

## DISEASE PREVENTION

- **Education!!!**

# WHAT THE MASSAGE THERAPIST SHOULD DO...



## WHAT THE MASSAGE THERAPIST SHOULD DO...

- The following information can be useful for you to use in your own Massage practice during any health emergency from something as periodic as an influenza season to a pandemic.
- It's what we do here and what will be expected from you during your time here at TLC

## HERE AT TLC...

- **AT HOME, as you start your day-** Students should take their own temperature before each school day begins to ensure they are not presenting with any covid19 related symptoms or any other contagious conditions that could compromise yourself or those around you.
- If you are presenting with fever or any other symptoms you should not come to the school and need to contact the school and notify your instructor or the front desk at x10 or contact your instructor directly.

HERE AT TLC...

- **Students are be expected to wear TLC provided masks at all times while in the building (No Exceptions) If you bring your own mask to school it will have to be approved by the School Director.**

HERE AT TLC...

- To mitigate risk and preserve your wellbeing the main entrance is off limits to students.
- Please use the entrance detailed below regarding your classroom.

## HERE AT TLC...

- **Classroom #1 Students-**
- If you are a student that attends class in classroom #1 Your new entrance for entering the school will be on the north side of the building (this is the entrance located next to our main parking lot).
- This will be your exit point as well. Unless using the rest rooms, or purchasing items from the front desk, please do not congregate in any other areas of the school.



## HERE AT TLC...

- **Classroom #2 Students-**
- If you are a student that attends class in classroom #2 Your new entrance for entering the school will be on the south side of the building (This is the entrance at the student lounge area)
- This will be your exit point as well. Unless using the rest rooms, or purchasing items from the front desk, please do not congregate in any other areas of the school.

## HERE AT TLC...

- **Once class is over, if you don't have any scheduled appointments, make ups or meetings with faculty or staff, please vacate the building.**
- **This will allow the cleaning service the opportunity to better prepare the building for the next group.**

## HERE AT TLC...

- Each classroom has two “Clean Stations” consisting of: wall mounted protective glove boxes, wall mounted mask boxes, wall mounted hand sanitizers, shelf mounted cleaning products with 90/10 alcohol solution. Specially designed air purifiers have been placed in the classroom and clinic areas.



## HERE AT TLC...

- TLC provides all linens and blankets for students use in the classroom & clinic to mitigate unwanted pathogens entering the building.
- Please do not bring ANY linens of any kind into the building.



## HERE AT TLC...

- As you begin to arrive for class MTI's will take the temperature of each student at classroom entrance.



## HERE AT TLC... “A” CLASSES

- Pre-Lecture preparation for students- Upon arrival all student belongings (**Books and lubricants. ALL other personal items should be left in your vehicle**) will be stowed at the back of the classroom against the wall on the door side of the classroom.
- Once all lecture tables are assembled, all students will glove up and clean lecture tables and chairs with 90/10 solution while instructor takes roll.



## HERE AT TLC... “A” CLASSES

- Post-Lecture for students- Students will disinfect all contents/equipment in classroom at the completion of their lecture.



## HERE AT TLC... “B” CLASSES

- Students will bring their own lubricants- upon arrival students will disinfect all bottles/containers using 90/10 solution.
- All personal belongings must remain in their vehicles with the exception of lubricants, identification and books.





## HERE AT TLC... “B” CLASSES

- Upon table set up, students will disinfect all contents/equipment they will be using prior to the start of their practice session.
- This includes; Table, table legs, height adjustment knobs and any smooth surface. Clipboards, pens. This is regardless if they are following a student who has just completed their post session clean up.



## HERE AT TLC... “B” CLASSES



- **Post class session protocols for students-**
- 
- Students will disinfect all contents/equipment in classroom at the completion of their practice session(s). This includes; Table, table legs, height adjustment knobs and any smooth surface. Clipboards, pens.
- This is regardless if they are following a student who has just completed their post session clean up.

## HERE AT TLC... “B” CLASSES

- **Linens, Clothing, and Other Items That Go in the Laundry:** In order to minimize the possibility of dispersing any particles through the air, do not shake dirty laundry.
- Remove all linens, blankets, and table setups; fold items in on themselves before putting in a closed bin or hamper.



AND OF COURSE....

- Repeat your handwashing protocol and reset the table and treatment space for next client.

## WASTE DISPOSAL

- Dispose all gloves, masks, paper towels, disinfectant wipes into Biohazard cans located on the far wall of each classroom

