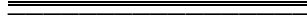
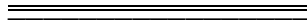


**The Bill Blackwood  
Law Enforcement Management Institute of Texas**



**Concept2Rower Physical Fitness Test**



**A Leadership White Paper  
Submitted in Partial Fulfillment  
Required for Graduation from the  
Leadership Command College**



**By  
Joe Lopez**

**Freeport Police Department  
Freeport Texas  
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## **ABSTRACT**

In today's 21<sup>st</sup> century policing, officer wellness and safety is a major role in the structure of the model. Most law enforcement officers walk into risky situations on day-to-day policing and can come into risky situations that may end in some sort of tragedy. Physical, mental, and emotional injuries to officers apply to all law enforcement agencies. However, a large number of police officer injuries and deaths are not the result of interaction with criminal offenders but the outcome of poor physical health due to a poor diet and lack of exercise. These poor qualities in one's health result in other major health related issues that can tremendously affect the way an officer performs his duties.

This paper will explain why law enforcement agencies should implement the Concept2 (2017) rower as part of their physical fitness test. This paper will focus on providing information to law enforcement agencies of the benefits the Concept2 rower has to provide. This paper will also show how an agency should implement the Concept2 rower test in order to cover all liability issues during testing. Police officers should always wear the uniform proud and strive to be the best in showing command presence. Law enforcement has always been a professional career and being a physically fit officer plays a major role in public image.

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## INTRODUCTION

Law enforcement officers are tasked with protecting and serving their communities. In serving their communities, law enforcement officers are expected to resolve problems that arise. These problems create problem-oriented law enforcement officers. However, the most problematic issue that law enforcement is faced with is their ability to stay healthy due to the stresses that is associated with their duties. Police officers must be able to make split second decisions daily. In order to perform well in all job duties, they must be physically stable to do so.

Many police department employees become complacent with their health. It has been seen multiple times where fit police officers become accustomed to bad eating habits when working long shifts. It is much easier for a police officer to choose a fast-food restaurant over a healthy choice due to the convenience over nutrition. It also does not help that unhealthy options in restaurants highly outnumber healthy options. One also becomes accustomed to the bad eating habits due to the shift work and busy schedule. These bad habits can cause a major effect in work performance and more importantly one's health (Roufa, 2017).

To keep officers in shape, most agencies perform a yearly physical fitness test. These physical fitness tests are different and based on the needs of the law enforcement agency. Some of the fitness tests are more demanding, while others are relatively moderate. Depending on the agency, these physical fitness exams may consist of the Copper Fitness Institute test, which requires a one to one and a half mile run and a certain number of sit ups, push-ups, and bench press. Other agencies

perform tests like pushing a car, running up flights of stairs, dragging a weighted dummy, and an obstacle course (City of Pearland, 2017).

Law enforcement agencies should implement the Concept2 (2017) rower as part of their physical fitness test. It is also very important for agencies to ensure that officers are performing safe physical agility tests to prevent any injuries during testing. The Texas Department of Public Safety (2017) has implemented the Concept2 rower as the department's physical readiness test. The DPS Concept2 rower fitness standards consist of rowing 2000 meters for time. The employees taking the fitness test must pass the evaluation at a 70% based on the subject performing the test (Texas Department of Public Safety, 2017).

## **POSITION**

The Concept2 rowers should be implemented due to the very minimal impact the machine has on the body. By implementing the Concept2rowers, the agencies will be promoting a type of low impact fitness. Low impact fitness exercises are made for the individual to avoid making contact between the limbs and a hard surface. Examples of low impact exercises would be using an exercise bike, elliptical machine, or even swimming (Fitday, 2017). Low impact exercises have a great impact in providing a healthier and safer way to better a persons health. They have also been proven to increase cardiovascular health, decrease damaging joints, and increase weight loss (Fitday, 2017).

Cardiovascular health is one big issue in law enforcement; it has been stated that "heart attacks are always in the top categories of police line of duty deaths" (Sheinberg, 2015, para 2). According to the national officer down memorial page between the years

2010 to 2017, 110 officers have died from a heart attack (Officer Down Memorial Page, 2017). It has been determined that a police officer has a life expectancy of 20 years less than a civilian. According to Sheinberg (2015), “the average age of a police officer who has suffered a heart attack is 49” (para 2). The average of the general population is 67 (para 2). Police officers are expected to live 20 years less than the average American; about 50% of police officers in the nation are expected to die five years after retirement (Vonk, 2007). According to statistics, police officers are 25 times more than likely to be killed by a heart condition than from any form of action by a suspect (Vonk, 2007).

According to the National Institutes of Health, 62% of police officers suffer from low back pain. Of those 62%, only 8% had back pain before beginning their career in law enforcement (Butler, 2011). There are several reasons why police officers suffer from back pain. Police officers usually are scheduled to work anywhere from 8 - 12 hour shifts. Most of those hours are spent in the patrol cars which are usually equipped with prisoner transport cages and several electronics, which make the vehicle less comfortable. It is common for police officers to spend several hours sitting in the vehicle leaving the lower back unsupported. These reasons will cause pain and discomfort to the lower back. At other times, an officer's job can be the opposite and they will have to stand for a long period of time. For example, it is common to see police officers working special events like professional athlete games. Standing for several hours can cause damage to the spine leading to back pain. In addition, police officers wear body armored vests, service boots, and a duty belt that can range from 20-25 pounds of weight. Not only does this cause pain and discomfort to the hips and lower back, it also adds on discomfort to the shoulders and neck from the body armored vest (Butler, 2011).

Obesity has also become a problem in the law enforcement community; not only does it create problems for the individual officer's health, it also causes issues on law enforcement as a whole. The Merriam Webster Dictionary defines obesity (2017) as a condition characterized by the excessive accumulation and storage of fat in the body. One's perception of the average police officer is the stereotypical donut-eating cop. According to Owens (2014), the FBI released a new statistic, which states, "8 out of every 10 law enforcement members are overweight" (para. 1). Low impact exercises have shown to increase the chance of weight loss, but only some cardio exercises target the full body like the rowing machine; "a rowing machine will target all of your major muscle groups" (Patrick, 2013, para 9). When using the row machine, individuals will have the option of controlling your speed, meaning you control your calorie burn.

Police officers have the second highest obesity risk of all occupations, as "40.5% of American police officers are obese. This level is noticeably higher than the reported national averages, which suggests 35.5 % of adult men and 35.8 % of adult women are obese" (Kulbarsh, 2014, para. 2). This means the national average is lower than the ones in the career of law enforcement. Obesity may lead to other major health issues if nothing is done about the problem. According to the National Center for Chronic Disease Prevention and Health Promotion, individuals that have a body mass index of 25 and above are in a higher risk of high blood pressure, heart conditions, high cholesterol, and diabetes (CDC, 2022, para. 12). It is also a big safety issue if an obese officer has to chase with an armed and dangerous suspect on foot. Once the officer apprehends the suspect, the officer will more than likely be out of breath and unable to perform any type of defense tactics in order to place the suspect into custody. Another

scenario that may happen is the obese officer can hurt himself while giving chase and cause a greater injury due to poor health.

## **COUNTER ARGUMENTS**

Law enforcement officers may have resistance to the Concept2rower and show concerns towards their agency as to how it is relevant. Officers may ask what a rower machine has to do with their duties. The Concept2 rower develops all three energy systems of the body: glycolysis, phosphagen, and the aerobic system (Concept2, 2018). The rower is also one of few exercise machines that measure the VO2 max outside of water (TxDPS, 2022, page 10). This rower is also very useful to assist in achieving high levels of cardiorespiratory fitness. The Concept2 (2012a) rower does not just focus on one part of the body or on a certain type of skill. The Concept2rower activates both hemispheres of the body that provides a full upper and lower body challenge and does not place any impact on the joints, unlike tests that require several other exercises like a one-mile run, push-ups and sit ups. One will get the same if not more muscles activated on the rower and in a much safer way in a better environment.

One of the most important things when law enforcement agencies implement or buy new equipment for the department is the budget. The Concept2 rower is inexpensive and is made in three models to accommodate the user's needs. The model D is \$900.00, and it is made for the use of an in home gym, or school training facilities, it is also Concept2 bestselling rower. The model E is \$1,100.00 and is similar to the model D but was upgraded to a higher seat level to accommodate anyone with knee injuries. The model E was also upgraded to a more heavy-duty frame and is used in commercial gyms (Concept2, 2017). The dynamic is \$1,250 and was designed to target



professional athletes and the machines can be linked together for team training (Concept2, 2017). The Concept2 (2012b) rower also provides a warranty. The Concept2 models D and E come with a five-year frame limited warranty, and an all part two-year limited warranty. The rowers also require very minimal maintenance. The Concept2 requires the chain to be cleaned and lubricated every 50 hours if used in a commercial environment. If not than the chain may be cleaned and lubricated once a week. The monorail on the seat must be kept clean to keep the machine functioning properly (Concept2, 2012b). The maintenance to Concept2 rower is very minimal and inexpensive and should not be a reason why law enforcement agencies do not implement them.

Officers may challenge the fairness of the calculated time they must row 2000 meters. The Texas Department of Public Safety (2017) uses a calculated VO<sub>2</sub> max chart system that is designed to be fair. VO<sub>2</sub> max stands for maximal oxygen intake and is referred to the volume of oxygen the body is able to take in in one minute (TxDPS 2022, page 10). VO<sub>2</sub> max is a type of measure for cardiorespiratory fitness. VO<sub>2</sub> max also takes into consideration the individual's gender, age and body weight to calculate the 2000-meter row time (Crawford, 2010). The Texas Department of Public Safety (2017) has implemented that all applicants must pass the 2000-meter row with a minimum standard 50 percentile according to the age, gender, and weight. On the Texas Department of Public Safety (2017) website, a time and percentage calculator is accessible. For example, an applicant or current employee that is 30 years of age and 200 pounds in weight must row 2000 meters in 9 minutes and 22 seconds. That estimation is using the 2000-meter time, combined with the weight, age, and gender. A

person may also calculate his or hers VO2 max to within 1.0-1.5% error factor, compared to the VO2 max chart provided by DPS. Due to the research and development of the Concept2Rower, it is possible to get a very good estimation of a person's VO2 max by rowing the best 2000 meters on the Concept2rower.

## **RECOMMENDATION**

All law enforcement agencies should implement the Concept2rower as their physical fitness test. The Texas Commission on Law Enforcement (TCOLE) does not mandate law enforcement agencies to implement physical agility test. The objective is not to make agencies apply a mandatory physical agility test, but to inform the law enforcement agencies of the benefits the Concept2rower provides. All law enforcement agencies should implement a physical agility readiness test for all applicants applying for a position in law enforcement by using the Concept2rower. By implementing the Concept2rower in the application process, it should be up to the agency to determine whether failing will be a disqualifier of the hiring process. For those agencies that do have yearly mandatory physical testing, they should look into adopting the Texas Department of Public Safety (2017) Concept2rower physical readiness test. The Concept2rower is a great machine for low impact exercises and will prevent officers from being injured during testing. It will also show the agency where the officers stand in their physical ability. The Concept2rower is also inexpensive, and cost should not be a reason why departments choose not to implement it.

Low impact exercises have also been proven to increase cardiovascular health, decrease damaging joints, and increase weight loss (Fitday, 2017). Cardiovascular health has been a big issue in the field of law enforcement as stated previously in this

paper. By law enforcement agencies implementing the Concept2 rower, it allows law enforcement officers to train on the Concept2rower as much as they would like. The key to good health and fitness is completely up to the lifestyle that one chooses. Any law enforcement officer should strive to always improve his or her health and fitness level. It is the responsibility of officers to maintain a level of fitness that allows them to insure they can carry out the job responsibilities and safely be able to handle any type of situation that may arise in this dangerous profession. Law enforcement officers should always remember that they also have a responsibility to their families and loved ones to maintain a healthy lifestyle when it comes to daily routines. To live and promote a healthy lifestyle, law enforcement officers must commit to good health. An officer must plan and establish personal goals and hard work with effort that must be a top priority to reach the goals set. By agencies promoting better health, officers will be better able to perform their daily duties with much less stress. Families of officers will also benefit from a continued level of health and fitness, which should contribute to a more positive and productive lifestyle, as well as a longer life.

In order to successfully implement the Concept2rower physical fitness test, a policy shall be set by the department. The policy should state that the participant must row 2000 meters for time based on the VO2 max calculation using gender, weight, and age. The policy should also be set as a health and fitness policy to assist each law enforcement officer having difficulties in promoting a healthy and fit lifestyle.

The law enforcement agency that decides to implement the Concept2rower should create a policy to avoid any liability issues that may arise and to also address the issues of good health and physical fitness. The department should also have a certified

officer that can administer the Concept2row test. The policy should implement a program to support and assist officers in promoting good health and fitness by providing necessary evaluations and checks of their general physical condition. The program should provide multiple resources and incentives for law enforcement officers to maintain and promote a healthy lifestyle. The policy should implement a fitness plan that promotes goals in the individual's nutrition, exercise, and how to maintain a healthy weight. It should be designed to help and promote officers to apply themselves in a health and fitness plan. Law enforcement officers should gain positive results and benefit the department in providing the citizens with assurance that physically fit and trained officers can carry out the duties that the job requires while demonstrating a great appearance. The officer will also gain great confidence and benefit from the officer safety factor that is present when one is physically fit.

The fitness policy should also request that each officer participating in the physical fitness test be required to have a physical health screening conducted by a physician before participating in the physical fitness test. The department should implement a physical fitness test form that should be signed by the physician conducting the physical health screening stating the officer is in good health to participate in the fitness test. If the physician finds the officer to not be in a healthy state to participate in the fitness test, then the agency should look into the officer's physical limitations that prevent him from participating. The department should then look into seeing if the officer's limitations will affect the safety of himself and others while performing the duties required as a law enforcement officer. If the officer is founded that he or she cannot perform the duties required, then the department must look into the

reason. If it is determined that the reason is poor health, then the department should look into placing the officer on a fitness and nutrition improvement plan. The improvement plan should be set by the departments certified tester or a nutritionist to ensure the progress goals are established. The progress goals should be established and adapted to the individual's deficiencies. The officer's immediate supervisor should be provided with the officer's fitness improvement plan.

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