



Fit4Duty is a smartphone app that tests for cognitive impairment. Companies can test the ability of employees to work safely, whether in a company vehicle or in a hazardous workplace environment. The implications for employee and public safety are staggering!

Alcohol abuse by employees has been an issue for companies for years. The legalization of marijuana in several US states, with more on the way and the impending legalization of marijuana in Canada has created a growing concern about the public risks of marijuana use. The most pressing public safety concern involves our highways, driven daily by millions of truckers, bus drivers and other commercial vehicles. But what about the millions of employees who might be subjected to a potentially dangerous work environment. Without an accurate and easily administered test, how are we to know that employees who have used marijuana or alcohol are fit to operate company vehicles or are fit to perform their work assignment.

The ability of a person to operate a motor vehicle safely or perform hazardous work assignments safely is negatively impacted by marijuana, alcohol, other drugs (both prescription and illegal), lack of sleep, and extreme fatigue. Any one of these can have an equally dangerous effect on the ability to drive a company vehicle safely and the ability to work safely in a potentially dangerous workplace environment. We need something that will take all of these things into consideration and measure their threatening influences accurately. This is Fit4Duty! And it can be available now on your smartphone.

What is Fit4Duty?

The ubiquitous smartphone has had the most dramatic influence on societal behavior in history and, with it, the smartphone app. Most employees use a smartphone and carry it with them all the time, making it a ready source of information and advice. Fit4Duty is a smartphone app available by subscription on both iTunes and Google Play. It is a touchscreen based app that in 60-90 seconds determines the test taker's cognitive alertness. The test is based on scientific evidence that the combination of increased reaction time and impaired short term memory will confirm the inability to perform assigned tasks safely. Accuracy and reaction times are recorded and the results fall into four categories: Pass, Caution, Warning, and Fail. When the test taker fails Fit4Duty, regardless of the cause of impairment, the employee should not drive nor accept a hazardous work assignment without further company interaction.

Fit4Duty and Commercial Drivers

Drivers that are on the road with cognitive impairments due to alcohol, drug use or lack of sleep constitute a danger to all other drivers. Fit4Duty is designed specifically to handle drivers that drive commercial vehicles for a living. The test is similar to the original Good2Drive test but a pc based

dashboard has been designed to help employers sign up drivers, monitor the test results for all of the drivers, keep a history file on each driver and take appropriate action when a 'Fail' test result is recorded. The logistics of handling hundreds of drivers if necessary has been optimized through the use of the Fit4Duty Dashboard.

Fit4Duty and Hazardous Workplace Environments

Employees that work in potentially dangerous environments in many industries increase the risk of accidents and even death when operating machinery, industrial vehicles and working alone in extreme weather and operating conditions while cognitively impaired. The results Fit4Duty will be sent to the appropriate employer contact and employees who do not pass the Fit4Duty test will be identified and appropriate action can be taken. Fit4Duty can be extended to any person who is subjected to a potentially dangerous situation where absolute alertness is of great importance. For example, applications abound in the military and government sectors of our economy.

How was it developed?

Fit4Duty is based on the scientifically validated cognitive awareness test, Memtrax, used to test for the onset of dementia and Alzheimer. The Fit4Duty test is an updated version of the Memtrax test purchased under license for use in mobility applications. The research for Memtrax has been ongoing since 2011 and has involved 45,000 validated test takers. The testing presents a clear picture of whether or not a test taker has Mild Cognitive Impairment (MCI), which involves the thinking skills that include the ability to make sound decisions, judge the time or sequence of steps needed to complete a complex task, visual perception and other key thinking skills, the exact skills needed to drive safely and react to emergency situations while driving or performing hazardous work assignments..

Scientific studies have been published for thirty years that indicate a positive correlation between alertness, short term memory and reaction time to outside stimulus. More recent studies have determined that any specific condition, whether caused by elevated alcohol levels in the bloodstream, the use of marijuana or other drugs, or simply the lack of sleep and fatigue will affect short term memory and reaction time. This is the basis of the Fit4Duty test.

What are the advantages of Fit4Duty for employers?

Fit4Duty is a game changer for companies that have employees working in potentially dangerous work assignments. This includes driving or piloting company trucks, buses, vans, boats, airplanes, taxis and automobiles. This includes, also, performing work related assignments that are potentially dangerous to the employee and personnel around the employee. Industries that often have hazardous assignments include oil and gas, chemical, mining, construction and manufacturing. Millions of employees in these industries must be sufficiently alert to respond rapidly and appropriately to an emergency situation.

Employers need to be able to know if an employee is in a position to properly handle his or her work assignment. However, testing for performance impairment due to drugs, alcohol or extreme fatigue is almost impossible in a workplace situation. In a clinical setting testing for alcohol or marijuana, measurements are derived from drawing blood, testing saliva, using a breathalyzer, or using retina

scans. None of these options make sense in a typical workplace. But the fact remains that employers will benefit greatly if the company can test for alertness. That can now be done! The results of using Fit4Duty as an alertness test for employees will determine whether your employee is fit for duty or not.

In addition, the matters of time and convenience cannot be underestimated. Cost implications are enormous if the company is required to use an outside clinic to administer any of the tests mentioned above. Fit4Duty is extremely inexpensive and easy to use. Equally important, the 200+ drugs and other causes that can impair the alertness and judgement of employees can generally not be tested at all! Fit4Duty changes that. With the full weight of scientific research and testing to validate test results and conclusions, Fit4Duty has the capacity to replace the all of the more difficult to administer tests and offer a unique and universal solution.

Virtually every employee has either an Apple or Android smartphone. Fit4Duty can be downloaded from either the iTunes store or Google Play. It is as simple as that. The test can be taken at roadside or at the work location. It is quick and easy and results would be sent to a dedicated dashboard at a designated company control location. Selected information (employee fail the test 3 times in a row?) could be stored in appropriate corporate employer databases.

What are the advantages of Fit4Duty and what are the implications for public safety

Safety is relevant in all circumstances. Employers hire people to operate dangerous machinery, whether it involves chainsaws on a wildfire line, forklifts in a factory, or bulldozers on a construction site. Those in the military operate numerous pieces of equipment that can be life threatening to the operators and those nearby. Pilots fly airplanes. Truckers drive big rigs that must be properly managed to stay safe on the highways. The same holds true for both municipal and school bus drivers. What about working with dangerous machinery in a manufacturing facility? The list is almost endless. If the employee gets a PASS result with Fit4Duty, it means that the employee has confirmed that he or she is alert enough to react properly in an emergency situation. It means also that the employer has taken that extra step to promote a safe environment within the corporation!

The Actual Fit4Duty Test

It is important that Fit4Duty not only has value as a test for cognitive impairment, Fit4Duty must also be easy and fun to use. Interfacing a smartphone on a touchscreen is a new experience for all of us. Prior to 2007, when the first iPhone was released, no smartphone apps existed and the pioneering value of an app like Fit4Duty would have been impossible as well. But today, all age groups are embracing the smartphone apps for both business and pleasure. The result is that we can have Fit4Duty and the smartphone becomes a tool for increased employee safety wherever it is used. Let's actually take the Fit4Duty test!

1. The employee signs up through the Fit4Duty ecommerce subscription process and receives login credentials. The subscription process established the communication links with the employers' dashboard and/or corporate database.

2. The App is downloadable to either an Apple or Android smartphone. The App includes an alertness test that measures short term memory and reaction time. The results of the test, which measures the correlation of short term memory and reaction time, will determine whether the driver has the cognitive capability to drive safely and will be given a pass (green), caution (yellow), warning (orange) or fail (red) score. The employee makes sure that the smartphone is turned on and facing him or her. Push the Fit4Duty icon and the forward facing camera will authenticate your identity through an initial and subsequent random selfies.
3. Push 'start' and a short tutorial will appear. Read and follow instructions.
4. Now take the actual Fit4Duty test. You will see a series of pictures in sequence. Tap the smartphone as soon as you see a picture a second (or third) time. Tap the screen as fast as you can when you are sure that you have seen that picture before. You are judged not only for accuracy but for speed. So as soon as you decide that you have or have not seen the picture before, answer the question. The test has been designed so that, if you are rested, stress free, drug free and alcohol free, you will pass the test.
5. The results, both in terms of accuracy and speed of response, will definitively assess your capability to drive safely. It is not possible to fake the test.
6. After you take the test, the results will be sent to your employer or other designated responsible party. The test result will be sent by email but in the near future, the results will be able to be sent by text as well.

Summary

Fit4Duty is a smartphone app that can be used by employers to confirm that an employee is alert enough to safely perform his or her work assignment, whether that is driving a company big rig or operating a five ton press in a manufacturing facility. Being cognitively impaired is a scientific way of saying that a person is not as alert as he or she would be under normal circumstances. Fit4Duty measures the extent of the cognitive impairment, regardless of the cause, and presents both the employee and the employer with a test result that determines whether the employee is alert enough to continue on his work assignment. This capability to test for the presence of any impairment, whether caused by drugs or alcohol, is a powerful new tool in the employers continuing commitment to corporate safety. Fit4Duty is fun and easy to use but it must be mandated by the company in terms of a scheduled program of use. A monitor and control capability has been built into Fit4Duty and a comprehensive program to manage its use will pay huge dividends for both the company and its employees. From a corporate perspective, Fit4Duty will have a positive impact on the number of employee accidents. At a national level, we will see fewer injuries because of these accidents and we expect to actually save lives in the process. This is a significant safety initiative that cannot be ignored.

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