

EEE190: SENIOR DESIGN

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Assignment Title

Authors:

Micheal FRITH
David LARRIBAS
Devin MOORE
Benjamin SMITH

Supervisors:

Fethi BELKHOUCHE
Russ TATRO

Abstract

The majority of society is becoming less active, which is leading to an increase in health problems. This problem is not specific to first world societies, although they tend to have more options for becoming active. Most people claim they don't have enough time to go out and get exercise, so we aim to allow people to get exercise while going about their daily tasks. With assisting people in getting active, we believe it is help steer society away from the sedentary lifestyle.

Index Terms

keyword1, keyword2, keyword1, keyword2, keyword1, keyword2, keyword1, keyword2



I. INTRODUCTION

A. Group meeting minutes and synopsis of past week

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TABLE I
SUMMARY OF TEAM ACTIVITIES

Task	Hours Worked	Status
Michael Frith	2.0	20%
David Larribas	2.0	20%
Devin Moore	2.0	20%
Benjamin Smith	2.0	9001%

B. TOC TEST

II. INACTIVITY

INACTIVITY Inactivity is becoming an increasingly large problem all around the world. Human beings must get regular exercise to keep their bodies in shape and free of sickness. It is becoming even more apparent, with an increasing amount of research being done across the globe, that physical activity also helps keep the mind healthy. This problem of people being inactive is not restricted to any specific socio economic sector.

Since the the advent of horse drawn carriages, humans have been finding easier ways to travel which require less physical work. Now that most modern societies contain acces to cars, taxis, busses, subways and the like, Its becoming much easier to get to where you need to be without having to walk much further than the length of your driveway. As

generations of people became so used to getting around by motorized vehicles, even children came to see this as the best solution to travel. People of all ages around the world are using motorized transportation of sometype. They could be driving their own car, riding a bus, an elderly care van, or being driven to school by their parents. The reasons for this behavior can range greatly. Some people see it as safer because walking in certain areas can have different dangers associated with it at certain times of the day. People in a modernized society especially, simply dont have time to walk the distance required to get to work, school, stores, and friends houses.

Leisure used to mean going outside, playing some sort of game with friends or family. Maybe some swimming, hiking, something of that sort. Increasingly it means sitting in front of a Television, computer monitor, or cellphone. [[We can get tooonnnns of statistics here]]. This is more prevalent in developed nations such as the US, however, technology is increasing worldwide at a substantial rate. Many times when people want to go out and get away from activities like that, they simply go to a movie theater, see a play, or eat at a restaurant. Much of our modern leisure is sedentary.

A large percentage of modern jobs require people to sit in one position for the majority of the day. [[[Insert Penile Statistics HERE]]]. Desk jobs, cubicles, computer work, and meeting all involve sitting in one spot for extended periods of time.

School is completely necessary, but again, requires students to simply sit in the same position for extended periods of time. During the earlier years of school, there is usually a small amount of time set asside for Physical Educatin. However people can be waived from this for all sorts of reasons, even for being too out of shape[[[A statistic here would be nice]]]]. The people that are able to get PE waived are, a lot of the time, the ones who could benifit from it the most.

Sleep, school, work, leisure, and going in between all of those activities, generally make up the majority of peoples day. It is very common that modern humans try to pack in as much as they can as efficiently as they can, so it is very rare to be able to devote more than an hour to some outside cause like exersize. But what if there was a way to fit in exersize with only adding a few incriments of 10-15 minutes throughout your day? How would

that benefit a human, and how can it be done?

III. HEALTH EFFECTS

INACTIVITY carries with it major detrimental effects to human health including physical and mental afflictions. The physical and mental handicaps include stress, depression, obesity and heart disease. These afflictions carry with them a reduced life span, inflated health insurance costs and a lower quality of life.

Obesity is an elevated topic of discussion because of the great number of detrimental effects it has on the human body. Each year there are 2.8 million deaths worldwide caused by being overweight or obese. 35% of all adults twenty years of age or older were overweight, with a large number of them being obese, according to a survey in 2008. (WHO Obesity). Obesity and inactivity can cause cardiovascular disease, high cholesterol, diabetes, different types of cancers and a number of psychological ailments. Nearly half of all adults worldwide are affected by cardiovascular disease which contributes to stroke and kidney failure. There were an estimated 17.3 million deaths caused by cardiovascular disease accounting for 30% of all deaths worldwide making it the number one cause of death. Hypertension alone, a form of cardiovascular disease, is responsible for 9.4 million deaths per year worldwide. Diabetes doubles the risk of death compared to peers of the same age. Diabetes will damage the heart, kidney, nerves and even blood vessels. Not only does inactivity aid in causing the previous physical effects, physical activity can alleviate or even cure these effects entirely. Physical activity increases energy levels with as little as 30 minutes of exertion a day. This can promote many benefits at home and in the workplace such as increased energy and facilitate daily tasks. Adequate physical activity coupled with sleep can provide energy throughout the day which can increase focus on any task, physical or not. Regular physical activity will increase cardiorespiratory and muscular fitness.

IV. OPTIONS

THERE are many different options for individuals to combat the adverse health effects of a sedentary lifestyle. From medications that suppress symptoms, to extreme diets that alleviate certain problems. However, both of those solutions can potentially

create other health problems of their own. The best way to avoid health problems stemming from inactivity, is simply to become more active. Recent studies suggest that at least 30 minutes of activity per day can [[[statistics]]]]. This exercise can come from something as simple as walking. Going to the gym, swimming, playing physical sports, walking