

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

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**The Negative Consequences of Rotating Shifts in Law Enforcement**

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**An Administrative Research Paper  
Submitted in Partial Fulfillment  
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## ABSTRACT

“To protect and to serve”, is the motto and duty of a police officer. What price do police officers pay to protect and serve? Our society does not operate on a Monday through Friday, nine to five schedule. In order to give 24-hour protection, some agencies have resorted to rotating shifts. Is this adversely affecting officers’ ability to do their duty?

Many researchers have studied the human body and the sleep/wake cycle. Documentation has been recorded on how rotating shifts affect humans both physically and psychologically. In reviewing this documentation and surveying those in the police force, findings show that administrations would most likely be alarmed at the affects of rotating shifts.

The human body was engineered in such a way that rotating shift work can very easily upset the harmonious state needed for it to operate sufficiently. This could not only negatively affect officers, but also jeopardize the integrity of their ability “to protect and to serve”.

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## INTRODUCTION

All over the world there are people with jobs that require them to work hours other than during the traditional workday, Monday through Friday. Some of these jobs are for the convenience of others. Owners or managers have determined that for the purpose of productivity or customer service, they will provide a service 24 hours a day. Other professions require around the clock workers for one essential reason, public safety. These jobs include; health-care workers, fire fighters, and police officers. No one would argue that these jobs require 24-hour coverage. Criminals don't go home just because it's dark. Accidents don't only occur during daylight hours. Therefore, working night or evening shifts is an expected part of the police profession.

Some police agencies require officers to work rotating shifts, to switch back and forth from one shift to another at frequent intervals. Administration may feel that straight shifts leave too many rookies on the night shift without resources and supervision, due to senior officers moving up into any day shift available. They may also fear that straight shifts will encourage "cliques" on a particular shift resulting in competition and animosity between the shifts. For whatever reason, the decision to implement rotating shifts is all too often made without regard to the impact it has on the officers doing the rotating. The purpose of this study is to inform administrations of the documented research on the negative consequences of rotating shifts. This study will look at the adverse affects rotating shifts has on the officers both physically and psychologically. Rotating shifts requires officers to change their sleep/wake pattern on an ongoing basis, often without time to adapt to the change. Studies have shown that frequent

changes to the sleep/wake pattern have a detrimental effect on the human body including, increased illness, a decline in mental and physical performance, and an incredible disruption to the officer's family life. Little, if any, effort is being made by agencies' administrations to help officers adapt to working shift work.

This article will elaborate on studies and research by those in medicine, psychology, law enforcement, and those who have experienced rotating shifts by review of literature, periodicals, books and a survey. These findings are expected to show that the benefits to administration are outweighed by the negative consequences to the officers. Increased sick leave, divorce rates, and burnout result from the constant need to adjust the sleep/wake pattern. Increased accidents and mistakes result from decreased sleep and poor concentration. The implications of this research will be to show any law enforcement agency considering implementing rotating shifts, the need to first consider the long-term negative affects to the health and well being of the officer.

## REVIEW OF LITERATURE

No one can disagree that rotating shift work affects officers. There are disturbances in health, mental performance, psychological and social functioning, marital relationships, and parenting responsibilities. No aspect of a shift worker's life goes unaffected. Clearly, no one can argue that rotating shifts has negative consequences on a police officer. Do the benefits to administration outweigh the side effects of rotating shifts? Experts have found cause for alarm and studied this matter in great detail.

Studies in the UK have found that; compared with day workers, shift workers:

- Suffer 2 to 5 times the rate of stomach disorders;
- Are more likely to suffer from cardiovascular disease;
- Suffer from peptic ulcers at an earlier age
- Suffer more from anxiety and depression;
- Are more likely to die younger.

Researchers who investigate the complex mechanism of the body's biological clock unanimously agree that rotating shifts creates the greatest health risks, because they cause the most severe disturbances. (Morgan) Rotating shift workers rotate between day, evening, and night shifts and are therefore fighting against their own biological cycles as well as a world that expects work during the day, recreation in the evening, and sleep at night. (Timothy H. Monk 1986) Rotating shifts appears to throw off the body's natural rhythm enough to lead to chronic sleep disturbances. In general, sleep loss will often result in performance deficits, including a decline in mental sharpness, slowed physical and mental

reaction time, increased errors, impaired memory, and reduced motivation. (Dr. Joseph Mercola 2001) Rotating shift workers are at an excessively high risk for involvement in accidents and serious injuries on the job. (Cleary PhD) One in every four men and one in every six women in the U.S. is a shift worker. These workers represent approximately 25 million Americans working shift work and according to one study, half of them have sleep problems. According to a U.S. Bureau of Labor survey, 61% of those 25 million are police officers, fire fighters, & security personnel. (David R. Morgan 1996)

Shift work, especially rotating shifts, ranks as one of the primary stressors in police work. (Kroes, Margolis, & Hurrell Jr. 1974) A 1980 study for the New York Police Department, found that the greatest sources of stress came from within the Department itself. The stress of undesirable working conditions and regularly changing assignments and tour schedules impacted adversely on eating habits and normal living conditions (Richard Bocklet 1988). Excessive use of force against suspects and arrestees and inappropriate response to community situations are some of the first results of this stress. (Moore and Donohue 1976)

Studies show that many shift workers suffer from additional stress caused by missing out on important parts of their social life. (Ranknfile)

Shift work may not only make people grumpy, but it could put them at a higher risk of heart disease according to Italian researchers. (Reuters) One of the most serious potential health problems linked to shift work is cardiovascular disease. A study published in the American Heart Assoc. Dec. 1, 1995, issue of Circulation looked into the relationship between working rotating night shifts and

(CHD) coronary heart disease. (Trossman 1999) Resistance of the body's internal clock to change with varied work schedules indicates that people don't adapt as easily as we think to shift work, and could explain why shift workers are at higher risk. (Furlan)

Gastrointestinal dysfunction is common in shift workers. Gastritis or other digestive disorder has been an explanation frequently given by shift workers for absenteeism and for switching to day work for health reasons. 16 studies, out of 24, evaluating peptic ulcer disease (PUD) and shift work, found shift workers to be at greater risk of developing PUD than day workers. The cause for gastrointestinal disorders in shift workers most likely has many factors involving dietary and lifestyle factors as well as the disruption of the biological clock. Officers working evenings or nights will often eat at unusual times and are limited in their choice of eating facilities to only those operating during the night shift. (Scott MD)

Millions of American couples include a spouse who works rotating shifts. Such couples experience significantly higher separation rates than those with spouses working only daytime hours. Two-fifths of all employed Americans work mostly during the evenings or nights on rotating shifts and/or weekends. This has a detrimental impact on the quality of the officer's marriage and family life. (Presser 2000)

With proof from studies that have been recorded and with yet more proof being documented with further studies, it is safe to say that there is enough valid information to prove that rotating shifts have grave negative consequences on officers and can potentially cost departments millions.

## METHODOLOGY

Do the benefits to a police department administration of rotating shifts outweigh the adverse affects it has on its officers? One who has reviewed the research conducted by law enforcement professionals, medical professionals, and families of officers would conclude that any benefits of rotating shifts to administration is not worth the consequences of poor health, poor psychological state, and poor performance to the officers.

A survey of 27 various size agencies within the state of Texas was conducted. 7.4% of the officers surveyed have been in law enforcement between one and five years. 22.22% have been in law enforcement for five to ten years. Over two-thirds of the officers surveyed have been in law enforcement from ten to twenty plus years. They were questioned on various topics such as, types of shifts they have worked and shifts they would prefer to work. Also, they were questioned on the affects that the rotating shifts have had on different aspects of their lives. The data was analyzed and gave proof to some of the adverse affects of rotating shifts mentioned here within.

## FINDINGS

The average person requires six to eight hours of uninterrupted sleep. Those who work rotating shift work lose an average of seven hours a week. Studies show that when this required amount of sleep is reduced there is a corresponding reduction in the person's ability to perform. The internal clock getting "out of synch" causes this reduction in ability. Our biological clock regulates our body temperature, hormone production, sleep/wake cycles and psychological states such as memory and the ability to perform tasks. There are as many as 6% of officers on duty at any given time highly impaired by fatigue, almost to the point as if they were legally drunk. (Villa and Kenny 2000) Rotating shift workers in turn have a higher occurrence of accidents, misuse of force and health issues relating to sleep deprivation, including digestive problems. A drop in productivity and mental sharpness that have been associated with rotating shift work has cost an estimated 70 billion per year. (Coleman 1989)

Rotating shifts has been deemed a factor in a number of digestive dysfunctions. Shift workers have been found to suffer significantly more upset stomachs, peptic ulcers, bouts of constipation and indigestion than do day workers. Research shows that due to biological rhythms being thrown off with no "real" routine sleep/wake cycles, improper digestion of food can occur and lead to weight gain in excess of 20 to 30 pounds (Bierma). The weight gain can also be attributed to eating less nutritional meals because they no longer have the routine of preparing meals with their families. One of the most common reasons officers working rotating shifts take sick leave is Gastritis. This adds to the cost of rotating shifts to administration.

The list continues with yet another negative consequence of rotating shift work. Several studies suggest that rotating shifts increase the risk of cardiovascular disease (CVD). We have means of using artificial light to convince our minds that it is daytime so that we can work, we can hang black curtains to convince us that it's night during the day so we can sleep but, our hearts are not so easily fooled. The nerve activity that increases the heart rate is lower when working a night shift than when working days & evenings. With varied work schedules, there is resistance to the body's internal clock and an inability to adapt to the variations. This puts great strain on the heart, which means it's unprepared for the stress it will inevitably encounter. Rotating shift workers tend to have higher levels of cholesterol and triglycerides as well. This leads to heart disease and again costs administration in sick time.

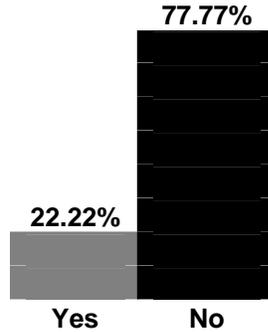
Social and family stress is yet another side effect of rotating shifts. Irregular schedules make it virtually impossible to fulfill parenting and social responsibilities. Late nights and evening shifts tend to upset family interaction the most. When the schedules change as they do with rotating shifts, a routine in the home is very hard to maintain. Rotating shifts are shown to create a significant strain on the marriage relationship as well. Higher divorce rates have in turn been reported in those working these ever changing shifts. Disturbance of their biological clock can affect an officer's attitude, mood, coping mechanisms, and how they relate to their family and life situations. The stress this puts on an officer will also lead to a decline in mental sharpness and performance. This can lead to many other problems that may in turn cost administration in time off.

A survey of 27 Texas police agencies varying in size shows that most of the studies ring true. Only 22.22% of the officers surveyed are still working rotating shift work, but 77.77% of them have worked rotating shift work in the past. Of those currently working rotating shifts, two-thirds work 10 to 12 hour shifts with 83.33% of them having a frequency of rotation between one and six months.

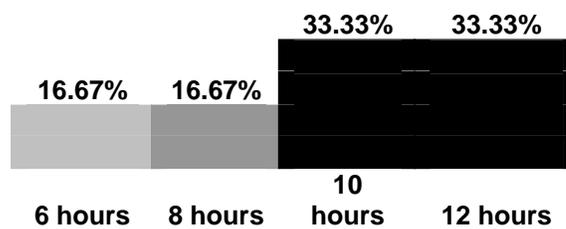
Of the 77.77% officers who had worked the rotating shifts in the past, the majority of them worked eight-hour shifts with most of them having had a rotation frequency of less than one month.

Officers surveyed showed that if given a chance 23.8% of them would have chosen eight hour day shifts and 14.3% would have chosen twelve hour day shifts. The other choices of eight-hour evenings or nights and 12 nights were equally divided with less than 5% having no preference. 86.36% of all officers responding to this survey would have preferred to work those shifts permanently, without rotation.

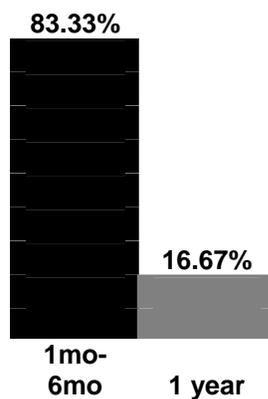
72.73% of the officers agreed that rotating shifts caused a decrease in the amount of sleep they received. 95.45% said it affected their personal life. The number of them whose health was affected was over 63%. Fortunately, most of these officers had understanding families, 72.73% said that the people in their homes respected their need for sleep during the day. None of the officers surveyed had ever left a job in order to avoid working rotating shifts. Sadly, over half of them concurred that rotating shifts affected their job performance. Could this be because a disturbing 40.91% of them have fallen asleep during their night shift rotation? This makes it difficult "to protect and to serve".



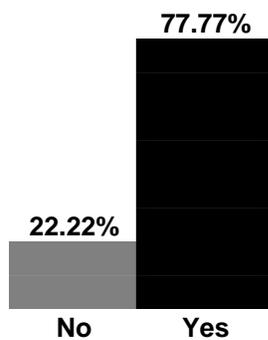
(Fig. 1) Are you Currently working rotating shifts?



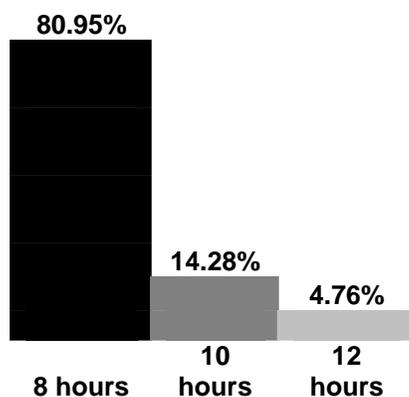
(Fig. 2) Of those currently working rotating shifts, what is the length of your shift?



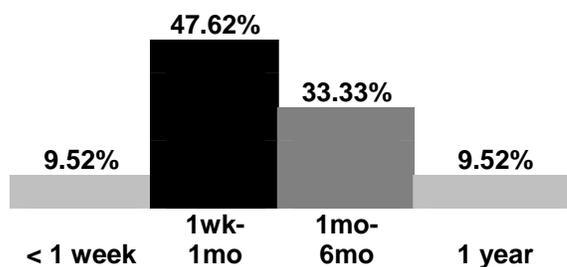
(Fig. 3) Of those currently working rotating shifts, what is the frequency of your rotation?



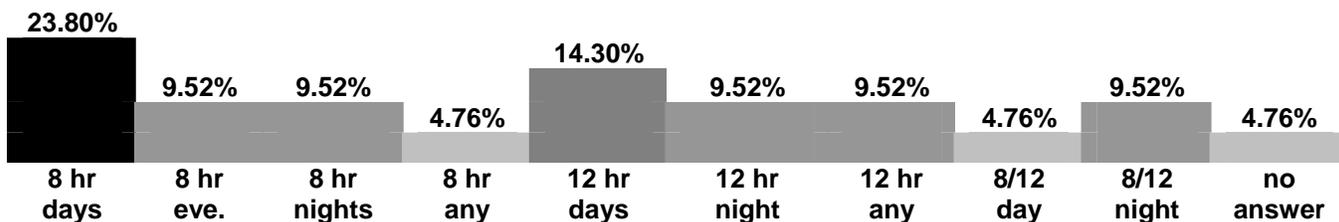
(Fig.4) Have you worked rotating shifts in the past?



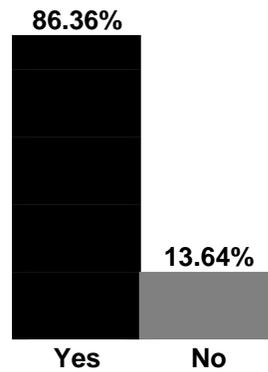
(Fig.5) Of those who have worked rotating shifts in the past, what was the length of your shift?



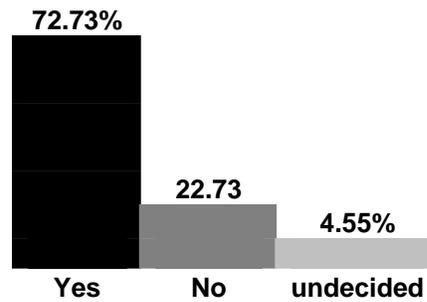
(Fig. 6) Of those worked rotating shifts in the past, what was the frequency of your rotation?



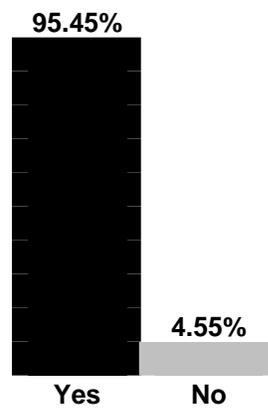
(Fig. 7) If given a choice, which shift would you prefer?



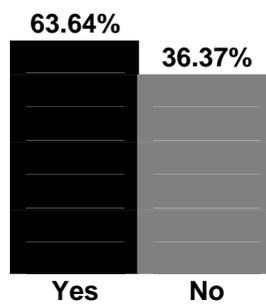
(Fig. 8) At the time of working these rotating shifts, would you have preferred straight shifts if you could have the one you chose above?



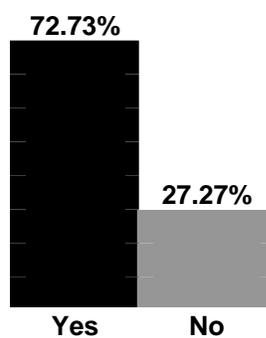
(Fig. 9) Do you feel that working rotating shifts decreased the amount of sleep you got?



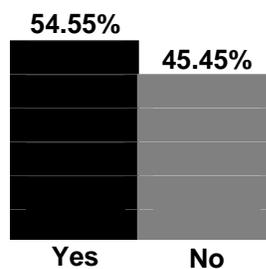
(Fig. 10) Do you feel that working rotating shifts affected your personal life?



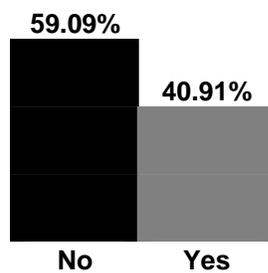
(Fig. 11) Do you feel that working rotating shifts affected your personal health?



(Fig. 12) Did other people in the home respect your sleep time during the day?



(Fig. 13) Do you feel that working rotating shifts has affected your performance on the job?



**(Fig. 14) Have you ever fallen asleep during your night shift rotation?**

## CONCLUSION

At what cost are officers paying to keep us safe? Are the negative consequences to rotating shift work worth the benefits it may have to administration? The purpose of this article was to collect and analyze what professional researchers had to say about the adverse affects of rotating shifts on officers physically, emotionally, socially, and psychologically.

It is clear that rotating shift work affects many aspects of an officer's life, their families, and the community they vow to protect and serve. Research clearly states that rotating shifts knocks the biological clock out of synch. With so many things controlled by this internal clock, it's no wonder that officers working rotating shifts are more likely to suffer from sleep disorders, cardiovascular disease, gastrointestinal disorders, and stress induced depression.

After reviewing responses from officers themselves from across Texas, they all concur that rotating shifts affects their sleep; they're personal lives, and their job performance. With all the missed work, on the job accidents, and higher insurance premiums costing departments millions, it's time that the administrations take a hands-on approach to helping their officers get their lives back. Departments need to educate their officers and evaluate and modify their scheduling programs. The police officer is an asset that needs to be taken care of. Modifications must be made so that the officers can do their duties.

It's no doubt that our society will continue to operate on a 24-hour basis. Programs must be put into place to help officers cope with the change in sleeping, eating, and socializing patterns. One way they can start is by reducing the frequency of rotation. Departments will have healthier, sharper, and better-

prepared officers if they would just realize that the negative consequences of rotating shifts greatly outweigh any benefit to anyone else. Without healthy and prepared officers, no one is safe.

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