TSAC CONFERENCE
TACTICAL STRENGTH AND CONDITIONING
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Obesity in Policing
A growing concern!

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The challenge?

Many PD face the same problem...

• Most recruits come in *relatively* fit!

• Some will stay fit throughout their career, but...

• Too many will become inactive and/or obese

• This has a negative impact on officer safety
Why attend this presentation?

As Fitness Specialists we all know ...

- How to help one person, or a small group of persons, to become active & lose weight
- But... How do we help a whole organization???
- This requires more than just fitness expertise
- This requires a Strategic Plan!
In this presentation...

We will look at:

• The Impact of Obesity on Health
• The Business Case for Addressing Obesity
• The Case Study of a Large Police Service
• The HP Plan to Address PA & Obesity
The Impact

Measuring obesity and its impact on health
Body Mass Index (BMI)

• **The BMI is the most commonly used measure of overall body fat and associated health risks in population-level studies.**

• **The BMI is calculated by dividing an individual’s weight (kilograms) by height (meters) squared.**

• Obesity (Class I): BMI > 30 kg/m², for adults aged 18+

• Obesity (Class II): > 35, Morbid Obesity (Class III): > 40

• [Source](https://secure.cihi.ca/estore/productFamily.htm?locale=en&pF=PFC1636) Obesity in Canada: A joint report from the Public Health Agency of Canada and the Canadian Institute for Health Information, 2011, p. 4
BMI limits

Self-reported data underestimates BMI
• You must compare the same type of data
• (measured data vs. self reported data)

Overweight category (BMI 25-29.9):
• Most fit and muscular (or big bone) individuals will be in this category. Avoid using! Waist girth would work better.

Pre-obesity (BMI 27.5-29.9): Could be useful!
Other measures

• Waist Girth: Useful; but measures at waist may vary... (obesity: > 40 in. men, > 36 in. women)
• W-H Ratio: Useful; fat distribution; standardization...
• Skin folds: Technical; some standardization issues...
• Under water: Precise but costly; limited accessibility
• Dissection: Precise, but NOT an option!!
• Back to BMI: Simple; cost efficient; availability of data (but it does not address fat distribution, fitness, etc.)
Obesity around the World (% BMI > 30 / Rank)

- Japan (64th)
- Italy (56)
- Norway (54)
- Brazil (51)
- Sweden (48)
- Germany (45)
- Australia (27)
- France (26)
- U.K. (16)
- Canada (14)
- Mexico (13)
- U.S.A. (6th)
General Health Risks

Obesity is associated with the incidence of:

• **several types of cancers**: colorectal, kidney, breast, ovarian, endometrial and pancreatic cancers

• **cardiovascular diseases**: hypertension, stroke, congestive heart failure and coronary artery disease

• **type 2 diabetes**, asthma, gallbladder disease, osteoarthritis, chronic back pain

The Business Case

Why should we be concerned about obesity in law enforcement?
Health Concerns

Police officers face higher stress levels (2012-07-10)

Buffalo PD

- 40% of officers were obese vs. 32 % of Americans
- The findings demonstrate that police work by itself can seriously affect the health of officers
- [http://www.ccohs.ca/newsletters/hsreport/issues/2012/07/ezine.html?id=23818&link=2#ithenews](http://www.ccohs.ca/newsletters/hsreport/issues/2012/07/ezine.html?id=23818&link=2#ithenews)
Health Concerns

Buffalo PD (...)

• *Shift work* was found to be a contributing factor to an increase in *metabolic syndrome*

• More than *25%* of the officers had metabolic syndrome vs. *18.7%* of the general population.

• [http://www.ccohs.ca/newsletters/hsreport/issues/2012/07/ezine.html?id=23818&link=2#inthenews](http://www.ccohs.ca/newsletters/hsreport/issues/2012/07/ezine.html?id=23818&link=2#inthenews)
Health Risks in LEO

Physical activity, fitness, & injuries in PO (2007)

Minneapolis Police Department

- BMI > 35: 3 X more likely to report back pain
- Officers who engage in higher levels of PA and are more physically fit have a lower prevalence of musculoskeletal injuries and chronic pain

Health Risks in LEO

The Need for Physical Fitness Programs for LEO
(Police Chief Magazine, June 2008)

Sedentary people:

• **twice the risk of:** coronary artery disease (...)

• **higher risk of:** stroke, colon cancer, back injuries
Safety Concerns

Obesity – an emerging risk factor in crashes

_Buffalo, USA._ (Dec. 21, 2010)

*Increase risk of death in a severe motor vehicle crash:*

- *moderately obese driver* - _21% increased risk_
- *morbidly obese driver* - _56% increased risk_
Safety Concerns

Obesity – an emerging risk factor (...)

Recommendations:

• *Extending the range of adjustable seats*

• *Encouraging obese individuals to buy larger vehicles* (with more space between the seat and the steering column).

• *Design and test vehicle interiors with obese dummies* (along with 50 percentile (BMI 24.3) male dummy)

• *http://www.buffalo.edu/news/releases/2010/12/12116.html*
Absenteism Concerns

Obese employees **in the US**: an epidemiologic study of 10,825 employed adults. (AJHP, 1998 Jan-Feb;12(3):202-7.)

- More than twice as likely to experience **high-level absenteeism**
- 1.6 times more likely to experience **moderate levels of absenteeism** than were lean individuals

Absenteeism Concerns

Study: Obese workers in the UK

Obese employees take more sick days (Feb 2010)

- They take an average of 9 days off work
- 4 more days than healthy weight employees
- Obesity increased the risk for both long-term (10+ days) and short-term absences
Absenteeism Concerns

Study: Obese workers in the UK (...)

- "Our hope is that by demonstrating the economic cost to them of obesity amongst their workforce that will help motivate employers to get involved in thinking about this problem." - study researcher Samuel Harvey, psychiatrist at King's College London.

Liability Concerns

Obesity as a disability  (Canadian Occupational Safety, June 2012)

Supreme Court of Canada decision (2000):

Disability includes...

• conditions with *medical or physical limitations*

• conditions that have *subjective limitations* — such as limiting a person’s abilities to do a job.
Liability Concerns

Obesity as a disability (...)

• Canadian courts are coming to recognize obesity as a disability.

• Employers should prepare their workplaces to accommodate overweight workers....

• Alcoholism... is now recognized as a ‘disability’

International Concerns

Pakistani police told to lose weight –or else...

(2012-06-18)

• Must shrink their waistlines below 38 inches or get off the streets.

• Oversized PO to be taken off operational duties, meaning less pay.

International Concerns

Obese U.K. police officers face pay cuts.
(March, 15, 2012)

London's police force

• 19% were obese
• 1% morbidly obese
• Lower than UK obesity rate (22.7%)
International Concerns

Obese U.K. police officers (…)

- The government-commissioned report suggested that officers who failed a fitness test three times should be disciplined and could lose 8 percent of their salary, as much as 3,000 pounds ($4,700) for some.

- [http://uk.reuters.com/article/2012/03/15/uk-britain-police-idUKBRE82E0SI20120315](http://uk.reuters.com/article/2012/03/15/uk-britain-police-idUKBRE82E0SI20120315)
International Concerns

Many Toronto Cops Are Overweight: Study
(CTV News, March 2006)

- 20% said they'd been diagnosed as obese
- 65% said they were overweight
- Almost 90% reported poor nutrition habits
- Lower than Canadian obesity: 23.1%
The Operational Concern

Should I run for it?
A Case Study

Looking at our experience

Royal Canadian Mounted Police

19,000 Police Officers
RCMP Overview

Policing From *Coast to Coast, to Coast*

- From rural, to urban, to isolated posting
- From GD to specialized duties
- 750+ detachments
- 19,000 police officers
- 10,000 CMs & PSEs
- 16 fitness specialists
- Hundreds of volunteers!
Obesity in Canada

BMI > 30

• About one-quarter of Canadian adults are obese
• 37% are overweight (BMI 25-29.9)
• Generally increases with each age group up to 65

Source: Obesity in Canada: A joint report from the Public Health Agency of Canada and the Canadian Institute for Health Information, 2011, p. 4 -6
https://secure.cihi.ca/estore/productFamily.htm?locale=en&pf=PFC1636
Obesity in Canadians

2004 Canadian Community Health Survey – Adult Obesity in Canada: Measured height and weight, p.20

Age groups

- Men
- Women

- 18-24
- 25-34
- 35-44
- 45-54
Male Obesity – RCMP Cadets

Male Cadets: Lower Obesity Rates

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Canada</th>
<th>Cadets</th>
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Male Obesity – Police Officers

Male Police Officers: Higher Obesity Rates

- 18-24
- 25-34
- 35-44
- 45-54

- Canada
- Police Officers
Male Obesity - Combined

- Canada
- Police Officers
- Cadets

20-25% Gap
Higher
The 15 year cut-off!

1983-1993 Cooper Institute of Research

- 1700 Officers. Less fit in most areas than 50% of Americans
- Body Fat and Cardiovascular Fitness lower than average

1992 Penn State Aging Study

- 10,000 Officers studied – 6 law enforcement agencies
- Below average aerobic fitness and body fat. Above average strength!

Both Studies... show a cut-off at age 35!

- Officers aged 21-35: fitness levels ≥ than 50% population
- Officers aged 35-55: fitness levels < than 50% population (same age group)
Male Obesity – Canada vs. RCMP

Male Obesity

- RCMP Cadets: 6.2%
- Canadians: 24.2%
- Police Officers: 32.4% (important increase at 35 years old)

Male Police Officer Obesity

- Increases faster with age than in Canadians
- Gets worst after age 35! Gap in age groups (cadets vs. PO).
Female Obesity – RCMP Cadets

Female Cadets: Lower Obesity Rates

- 18-24
- 25-34
- 35-44
- 45-54

Canada
Cadets
Female Obesity – Police Officers

Female Police Officers: Lower Obesity Rates

<table>
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Female Obesity – Combined

- Canada
- Police Officers
- Cadets

17 % Gap
Female Obesity - Canada vs. RCMP

Female Obesity

• Cadets 1.3 %
• Canada 23.6%
• Police Officers 17.6%

Female Police Officer Obesity

• **Lower** throughout their careers
• Gap between cadets vs. police officers of same age groups
Associated Health Conditions
Associated Health Conditions

Use of medications

• A greater % of men used medications for HBP, Cholesterol and diabetes. These conditions are known to be associated with obesity.

• The highest use is for back pain medication: 32% of men, and 37% of women. There could be a potential link with the duty belt!
Fitness & Lifestyle survey 2013

The survey will provide data on the following factors:

• Physical activity (quantity, intensity, frequency)
• Nutrition, weight management, BMI
• Health conditions, medications, sick days
• Back health, stress, shift work
• Sleep, work life balance, commuting

* Slicing & dicing of data from April-June
Weight Reduction Policy

Criteria & Eligibility
(Requires approval from RCMP doctor)

BMI > 30:
• 7000 police officers have a BMI > 30

BMI > 27 (with hypertension, diabetes, dyslipedemia, or excess VAT)
• An additional 3,000 would qualify
Potential Costs - Weight Reduction

Potential Costs:

• Eligibility: 10,000 police officers eligible
• Maximum cost: 3,000 $ per person
• Potential cost: 30 millions$

Use of the Policy

• 2009-11: Only 250-400 per year
• 2013 Survey: 80%... not aware of the policy
  
  What if everyone was aware?
Potential Costs - Days off sick

If obese employee take 4 more days off sick than healthy weight employees...

http://www.msnbc.msn.com/id/38526034/ns/health-diet_and_nutrition/#headline

• 7,000 employees X 4 days: 28,000 days
• 28,000 days: 76.7 FTE year
• 76.7 year (100G salary/benefits) $7.7 millions more

Does not include:
• medications, medical visits, safety, productivity, etc.
Other Potential Costs / Risks

What are the potential liabilities for placing officers with obesity in operational situations?

• Associated health risks
• Associated injury risks
• Associated death risks (especially in max effort)
• Increased risk and impact of car accidents
• Will we need to buy bigger cars, chairs, etc.
Other Potential Costs / Risks

• How do we balance the need to protect the public and to protect our own police officers? (Either from themselves or from their back-up)

• Where do we draw the line? BMI > 30, 35, 40, 50?

• We need a plan!
The Plan

How to Promote

*Physical Activity and Healthy Weight?*
The Goal and Objectives

Goal:
• To support public and officer safety by promoting the adoption of *Fit & Healthy Lifestyle for LEO*

Objectives
• **P**romote... police fitness and healthy weight
• **A**ssess... police fitness via PARE
• **R**estore... police fitness (RTW, LT-ODS, injuries, Mat-Pat, PARE > 4:00)
• **E**valuate... results
Health Promotion

Interview (or exam) questions:

• If we were to hire you what would you do to promote police fitness and healthy weight?

• Which strategies would you use?

• ... what else?
Research (establish baseline)

• Learn about obesity and weight management
• Gather the data in your police organization
• Identify trends (by age, gender, work status)
• Compare data with your state, country, other PD
• Set SMART objectives!

Note: The same can be done with PA (or inactivity), lifestyle, etc.
Advocate

• Package the information... slice & dice the data
• Identify key messages (in win-win terms!)
• Present to stakeholders (LEO, Union, Management)
• Develop partnerships and enlist support
• Foster ownership and empowerment... this is everyone’s concern and effort! Team-up!
Partnership

Seek upper management and union support to:

- Include *Healthy Weight* as part of *Employee Wellness* on the PD strategic plan (MVV)
- Set *objectives* for managers, supervisors and police officers. Build-in accountability!
- Find your *Champions*  
  (high rank officers, union reps, leaders!)
Develop Healthy Policies

Health Benefits:
- Time away from duty for PA
- Health coverage for weight loss/fitness program
- Access to fitness & nutrition resources

Policies (to be develop in partnerships)
- Defining BMI policy for LEO’s health & safety
- Offer mandatory counseling /support when needed
Communicate

Communicate:

- **What?** Key objectives! 150 PA & BMI<30
- **Why?** Health, safety, operations
- **How? When?** Program activities and timelines
- **With whom?** Partners, resources, leaders
- **How much?** Process, results, impacts
- **Share success stories!**
Educate

Develop and offer:
- Training programs ***
- Q&A articles and tips
- Conferences, workshops, classes, e-learning
- Posters, pamphlets, promotion, videos

Topics
- Police fitness, nutrition, healthy weight
- Healthy lifestyle, shift work, coping strategies
Example

The 5 A$ of Obesity Management (50 page PPT)

Canadian Obesity Network: [http://www.obesitynetwork.ca/5As](http://www.obesitynetwork.ca/5As)

- **ASK** for permission to discuss weight
- **ASSESS** obesity related risk and potential ‘root causes’
- **ADVISE** on obesity risks, discuss benefits & options
- **AGREE** on realistic weight-loss goal and on a SMART plan
- **ASSIST** in addressing drivers & barriers, offer education & resources, refer to provider, and arrange follow-up
Peer Support

• For some police officers the last time they trained was at the police academy!

• The last time they loss weight was with WW!

• Many will need to be part of a group in an instructor led type of setting. Fitness classes, WW groups.

• Promote existing opportunities (in-house or in the community) or develop new ones! Buddy system, clicking and networking can help!
Mobilize

Create Challenges (within departments /units)

- The Biggest Loser (or winner!). Gut Busters!
- Active Challenge (using existing programs)
- Pair up participants or create groups
- Offer incentives, prizes, certificates
- Promote successes and offer *bragging rights*!
- *Collect pre and post activity data!*

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[Logo: NSCA Conference]

[Website: NSCA.com]
Supportive Environment

Possibilities

• Include *health & fitness* on each meetings’ agenda
• Provide fitness facilities and/or resources in worksites
• Create a visual environment (posters, bulletin boards)
• Encourage the use of existing policies and benefits
• Recognize *health & fitness* contributors / volunteers
Social Marketing – 4 Ps
(product, promotion, placement, price)

Report and Promote Successes

You could be doing a great job, but if you cannot measure it and promote it, you could have limited success (and funding!)

- Communications: Who / how many read your material?
- Programs / Activities: Who / how many participate? Impact?
- Policies / facilities: Do people know and use them?
- Impact: Is it impacting the trends and data?

Analyze and readjust as needed!
Research (Evaluation)

Monitor, Analyze and Evaluate:

• Processes: how did it go? what could be improved?
• Results: what was accomplished? who did we reach?
• Impacts: What did it change? By how much? In whom?
Example – 8 Week Fitness Challenge

Pre-test questions / registration
- Age, gender, height, weight, COE, years of service?
- Min. of PA/week? How did you learn about the challenge?

During the challenge
- Participants log-in their daily/weekly minutes of PA

Post-Challenge questions / submitting results
- Did you increase, maintain, lower your level of PA?
- Did you lose or gain weight? Yes, No, by how much?
- Health benefits? Improving the challenge?
Example - Results

Fitness Challenge

• 2500 person registered (% inactive, % active, % very active)
• % completing the 8 week challenge
• % increased level of PA.
• **Average increase**: # min./ week
• **Average weight loss**: # lbs (men), # lbs (women)
• **Most weight loss**: # lbs (men) # lbs (women)
• % of would recommend the Challenge
• All received a certificate signed by Chief of Police.
• **See article and pictures!**
Health Promotion

Interview (or exam) questions:

• If we were to hire you what would you do to promote police fitness and healthy weight?

• Which strategies would you use?

• ... what else?
10 HP Strategies

1. Communication
2. Social Marketing *
3. Education... one-one-one, small groups
4. Peer Support
5. Community Mobilization
6. Organizational Changes
7. Healthy Policy
8. Advocacy
9. Research *
10. Interdisciplinary approach *
Our Team
Presentation Recap...

We looked at:

• The Impact of Obesity on Health
• The Business Case for Addressing Obesity
• The Case Study of a Large Police Service
• The HP Plan – to Address Obesity and PA
Questions? Thank you!

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