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# *Best Advice*

on Stress Risk  
Management in  
the Workplace

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Part 1 of 2

Canada

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# ***Best Advice***

on Stress Risk  
Management in  
the Workplace

# ***Foreword***

*Best Advice on Stress Risk Management in the Workplace* was developed by Dr. Martin Shain, S.J.D., in close consultation with Health Canada, AON Consulting Inc. and CHC Working Well. They have benefited from exposure to and feedback from more than 100 workplaces represented by CEOs, Occupational Health and Safety (OHS), Employee Family Assistance Program (EFAP) and human resources managers/directors, and numerous employees serving on health and safety related committees.

The primary purpose of this publication is to raise awareness and inspire action concerning the very real risks to health and safety posed by certain kinds of toxic stress in the workplace. As such, the materials can be used as a presentation and can also be used on a self-instructional basis. They can also be used to assist in the development of workplace surveys and the understanding of results from these surveys. Included in the materials are numbered overheads that can be copied onto acetates for use in an overhead presentation.

Since the materials “tell a story” it is best not to omit sections when making presentations. Enough time should be allowed to present the story in its entirety — about an hour overall.

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## ***List of Overheads***

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2. Work Factors Threatening Mental Health and Physical Safety
3. Stress is the Sea: Efficacy and Social Support are the Sea Wall
4. Normal and Excessive Stress
5. Demand/Control Model (adapted from Karasek and Theorell)
6. Effort/Reward Imbalance Model (Siegrist)
7. General Model of Influences on Wellness in the Workplace (Shehadeh and Shain)
8. The Strain-Illness Connection: Close-Up (Kiecolt-Glaser and Glaser)
9. Demand/Control, Effort/Reward, Fairness, Purpose and Trust
10. The Production of Conflict, No. 1
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12. Expressions of Conflict
13. The Costs of an Unhealthy Workplace
14. The Wheel of Harm
15. Organization and Design of Work: Positive Influence
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17. Consequences of Excessive Stress: Mental and Physical
18. Consequences of Excessive Stress: Social and Economic
19. The Health and Safety Difference: Management Picks Up Where Technology Leaves Off
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21. Stress and Ethics: A Summary
22. Areas in Which Employee Participation Can Be Increased to Produce Mental and Physical Health Gains and to Reduce Costs
23. Partners in Stress Risk Management — A Combined Forces Approach to Stress Abatement
24. Local Knowledge About Stress at Work

# ***Introduction***

The purpose of this presentation is to show how excessive stress and the costs associated with it can be identified and contained in workplace settings.

Workplace stress of certain kinds and at certain levels presents risks to mental and physical health and to safety. We will identify the kinds and levels of workplace stress that are particularly “risky,” as well as the harmful consequences of such stresses, including everything from the common cold to heart disease, cancer and injuries.

The novel aspect of what you will see and hear is the portrayal of stress risk as something that is *produced* through human interactions in the workplace. Since production is managed, stress risk can be managed also. But when we talk about stress risk management here, we mean dealing with stress at the point of production — at source, upstream.

This presentation, then, deals with the organizational rather than the individual aspects of stress and its management. In other words, we are less concerned with the *coping* skills that help individuals *deal* with stress and more concerned with the *decisions* and *choices* that *produce* stress. The point is not to devalue *personal stress management*, but rather to cast some light on the much neglected issue of *organizational stress risk management* or *stress abatement*.

***The presentation is divided into three parts:***

1. What Do We Know About the Organizational Sources of Stress?
2. What Are the Implications of This Knowledge?
3. What Can We Do to Abate Stress (Manage Stress Risk) in the Workplace?

The presentation also includes 24 overheads which can be photocopied onto acetates.

**Note:** “References” refer to numbered entries in the Bibliography that appears at the end of this document. These reference materials demonstrate that the statements made about stress and its consequences are in fact *scientifically based*.



1

**What Do We Know  
About the Organizational  
Sources of Stress?**

## Stress and the Ingredients of Mental Health

Broadly speaking, excessive stress is produced when work is organized and designed in ways that ignore or devalue certain basic human needs, particularly those related to our mental or emotional health and well-being.

Overhead 1, “Basic Mental Health Needs in the Workplace,” shows some of our most basic mental health needs, after we have dealt with physical needs for food, shelter and security.

We need to bear in mind that *mental health and physical health are very closely related*. We will hear more about this link shortly.

(See References 6, 8, 11, 13, 16, 32, 33, 38.)

## Stress and Threats to Mental Health

Numerous factors in the organization and design of work can *threaten* the mental or emotional health of employees. These factors are often thought of as “stressors.” They are also known as “mental hazards” because they threaten mental health in the same way that unsafe places and things are hazards threatening physical safety.

However, threats to mental health are also often threats to physical safety since emotional upset can lead to dangerous distractions. (This is discussed in more detail later.)

(See References 1, 2, 3, 7, 9, 10, 11, 14, 17, 19, 24, 26, 30, 32, 33, 34, 37, 38, 39, 42, 45.)

### **Basic Mental Health Needs in the Workplace**











-  respect and appreciation
-  feeling heard or listened to
-  freedom to speak up
-  a sense of confidence and self worth
-  freedom from chronic feelings of hostility and anger
-  a sense of belonging to a meaningful and supportive work group
-  freedom from chronic symptoms of distress, anxiety and depression
-  periods of relative calm and peace of mind

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### **Work Factors Threatening Mental Health and Physical Safety**

(Examples of “Stressors” or “Psychosocial Hazards”)

-  work overload and time pressure
-  lack of influence over day-to-day work
-  lack of training and/or preparation (technical and social)
-  too little or too much responsibility
-  ambiguity in job responsibility (too many masters)
-  lack of status rewards (appreciation)
-  discrimination
-  harassment
-  poor communication
-  neglect of legal and safety obligations

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## Stress, Strain and Personal Resources

At this point we should draw a distinction between *stress/stressors* and *strain/distress*. Not everyone will experience stress/stressors as strain/distress.

(See References 11, 13, 14.)

However, later on in the presentation we will see how certain types and levels of stress produce strain in very many people to the point where we can think of such stress effects as being predictable and foreseeable. These are the types and levels of stress that are true *risk factors* in the production of health and safety problems.

At certain levels, stress can break down the sea wall of almost everyone's personal defences. The major defences that people have, to one degree or another, are:

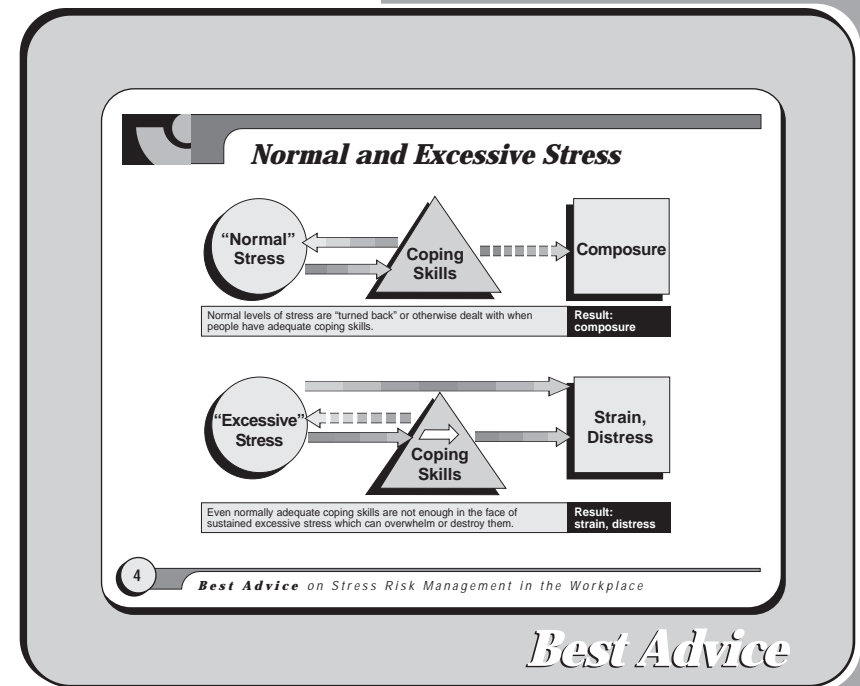
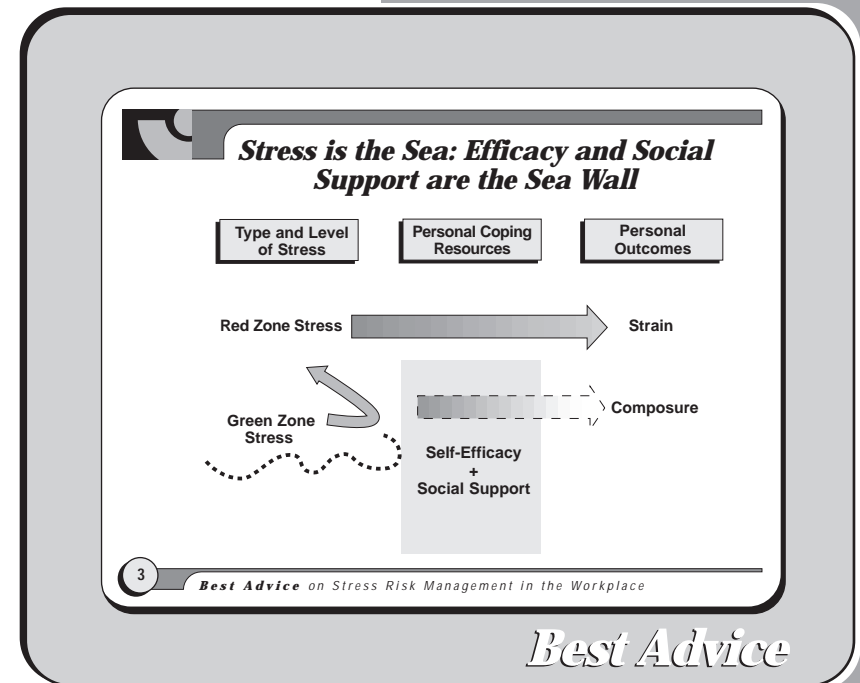
- self-efficacy
- social support

**Self-Efficacy** means having a sense that you can influence the course of events in your normal daily life and that you can deal with their normal consequences. It also means feeling confident and sure of yourself.

(See Reference 37.)

**Social Support** means having people around you or available to you that you can count on in times of trouble, worry or stress.

(See Reference 37.)



## Some Stressors are “Riskier” than Others

Research over the last 15 years has shown that some stressors are simply worse than others. Three “models” of such stressors and their effects on health and safety are of particular importance. These are:

1. The Demand/Control Model (Karasek and Theorell)
2. The Effort/Reward Imbalance Model (Siegrist)
3. A General Model of Influences on Wellness in the Workplace (Shehadeh and Shain)

These models are now presented in turn. The common factor in all three models of how stress affects health is the identification of certain workplace conditions as key players in the production of stress. These conditions arise largely from decisions that are made about how work should be organized.

After showing the models in their broad strokes, we focus on their specific ability to predict health outcomes in quantifiable terms.

*(See References 19, 37, 38.)*

## Demand/Control Model: Working Definitions

**High Job Pressure:** having too much to do over too long a period with constant imposed deadlines.

**Low Job Control:** having too little influence over the day-to-day organization of your own work.

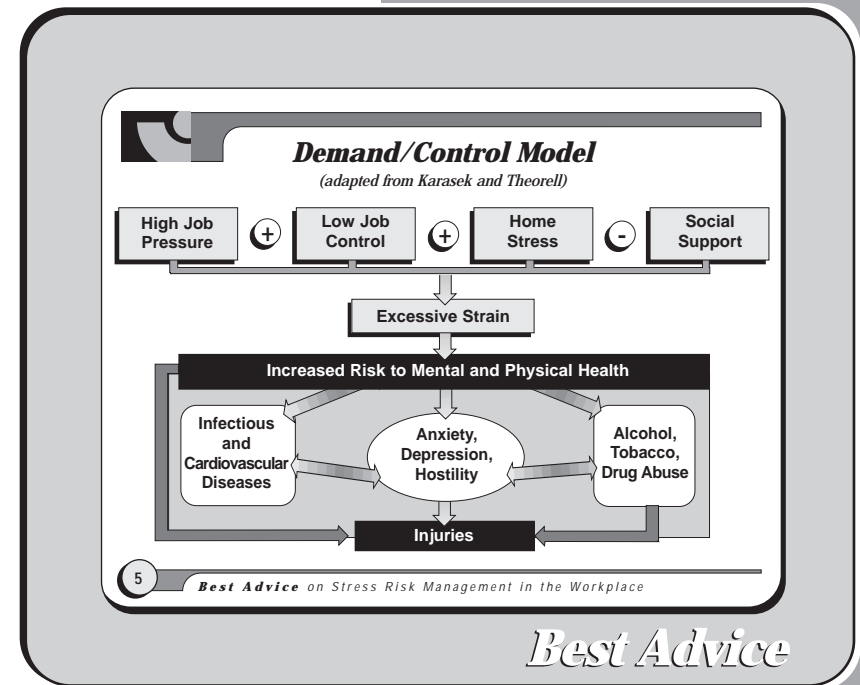
**Home Stress:** the sum of cumulative demands, challenges and changes experienced on the home front.

**Social Support:** having at least one person who can be relied on for emotional support during times of distress or unhappiness.

This model shows that *high pressure* plus *low control* contribute to *strain*, particularly when combined with *home stress* and the absence of *social support*.

Strain can be expressed in a number of ways:

- as injury
- as infectious disease
- as cardiovascular disease or events
- as anxiety, depression or hostility
- as dependence on alcohol, tobacco and/or certain prescription and over-the-counter drugs



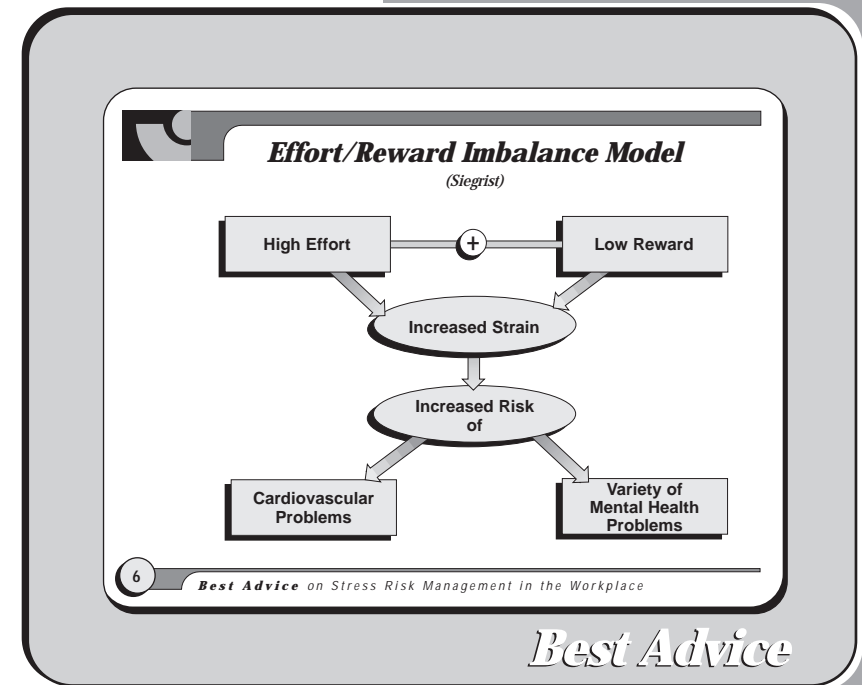
## Effort/Reward Imbalance Model: Working Definitions

**Effort:** mental or physical energy expended to achieve an organizational goal.

**Reward:** compensation for or acknowledgement of effort in terms of bestowed status, financial gain or career advancement.

This model shows (at this stage of its development) that high effort/low reward conditions are associated with a variety of adverse health outcomes prominent among which are cardiovascular disease and mental health problems such as anxiety and depression.

**General Note:** there is increasing evidence that the Demand/Control Model and the Effort/Reward Imbalance Model are related in that high demand/low control and high effort/low reward conditions may be found in the same organizations at the same time.

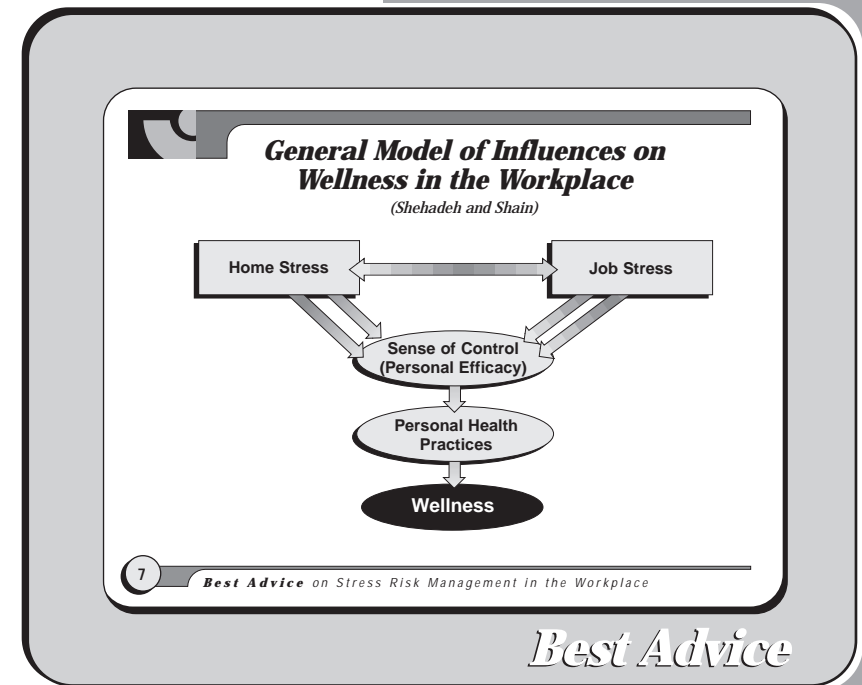


## General Model of Influences on Wellness in the Workplace: Explanation

This is a condensed and simplified version of the model.

### Main Points

1. Home stress and job stress in this model refer to *accumulated* stresses from many sources — it is the *additive* effect of all of them that concerns us here.
2. Job stress in this model contains elements of both demand/control and effort/reward imbalance-type stressors.
3. Home stress and job stress “feed off” and reinforce each other, the one making the other worse.
4. Home stress and job stress affect wellness (which means self-reported health status) by two related mechanisms:
  - By defeating employees’ sense of control over their work and their health which in turn reduces motivation to pursue positive health practices.
  - By making it difficult for employees to maintain a healthy lifestyle and pursue positive health practices.
5. Personal health practices in this model refer to:
  - exercising
  - eating
  - smoking
  - sleeping
  - drinking alcohol
6. We know that wellness (self-perceived health status) is a good predictor of many specific health outcomes including:
  - susceptibility to infection
  - depression and anxiety
  - tendency to overuse mood-altering, pain-relieving and sleep-inducing medications



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## The Strain-Illness Connection: Explanation

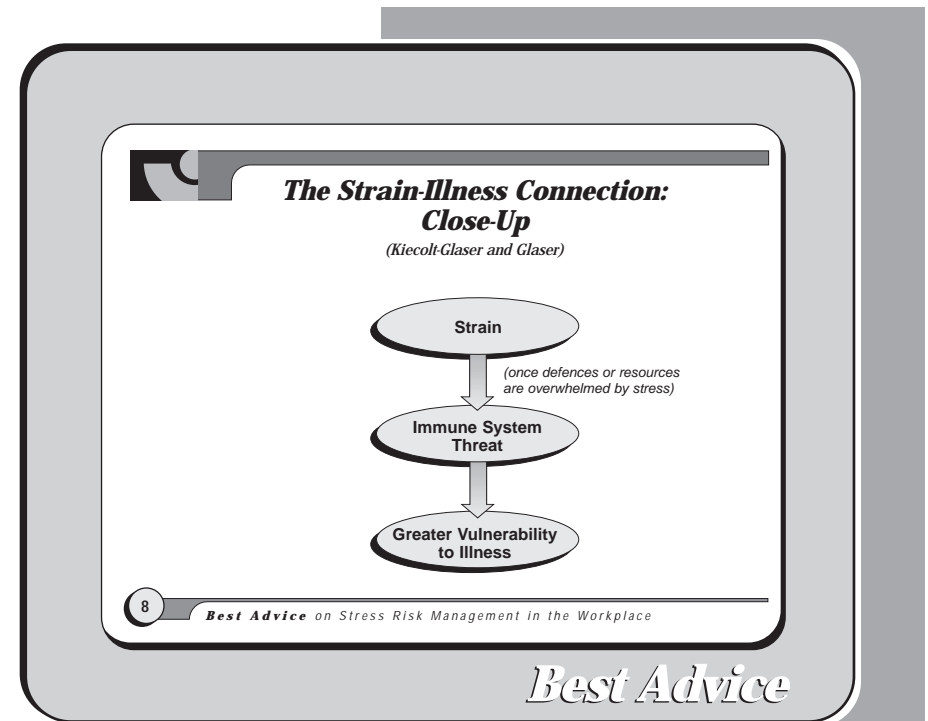
The effect of stress on illness is being studied intensively by scientists. The next overhead is a very simplified version of the general process by which stress affects health.

The field of study is known as “PNI” or “psychoneuroimmunology,” which is the process that links stress and illness in all three models shown so far — i.e., the demand/control, effort/reward imbalance and general models.

According to this process, external and internally generated stress leading to *strain* causes changes in brain chemistry which ultimately imperil the immune system’s ability to defend the body against bacterial and viral attacks. This leads to a greater vulnerability to infections and other diseases.

The effect of excessive stress and strain on brain chemistry is experienced as *mood* — usually depression, anxiety or anger, depending on the individual and the situation. Even when such negative mood states do not produce immune system deficiencies, they are important in themselves because they are associated with poor morale, absenteeism and lower productivity. One way to remember this is to recall Bernie Siegel’s summary of PNI in which he says “Feelings are chemical, and chemicals can kill or cure.”


(See References 2, 15, 20.)




## Fairness at Work: The Missing Link


Clearly, demand and control, effort and reward are powerful influences on the health of employees. However, recent research raises the very strong possibility that the effect of these influences is multiplied when high demand/low control and high effort/low reward conditions are perceived as unfair and/or as indicative of the employer's lack of respect for employees.

(See, in particular, Reference 41.)

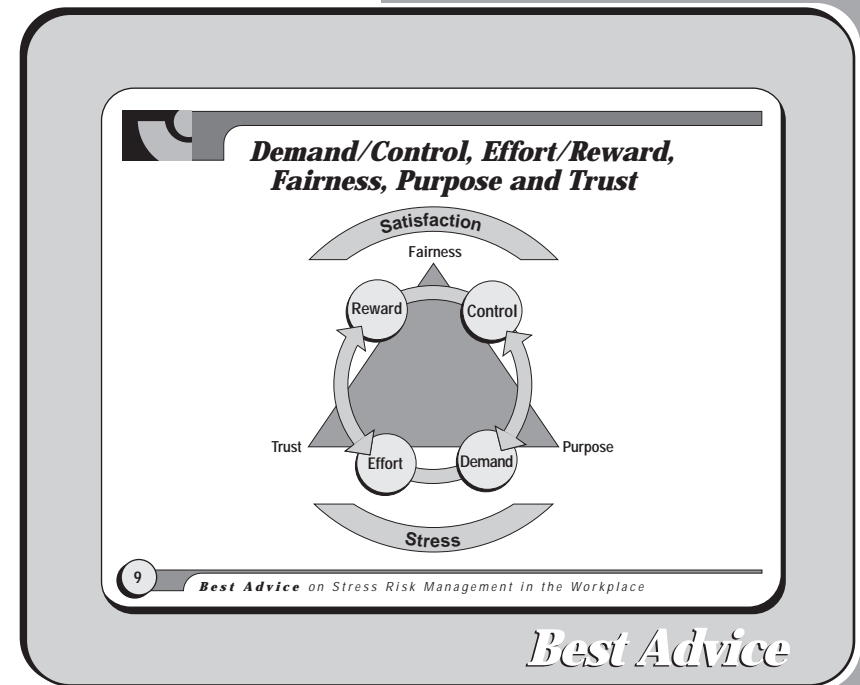
-  Two kinds of fairness are involved:
  1. **Distributive** — who gets what, and when.
  2. **Procedural** — the processes through which decisions are made.




-  *Feelings* associated with the *unfairness* of high demand/low control, high effort/low reward conditions include:
  - depression (misery)
  - demoralization
  - anger
  - anxiety

(Different people will experience different feelings in response to unfairness.)

-  *Feelings* associated with *fairness* of high control, high reward conditions include:
  - satisfaction
  - enthusiasm
  - calmness
  - happiness

The perception of unfairness and the strong feelings that go with it *translate chemically* into compromised immune systems, setting the stage for a variety of adverse physical health outcomes, as well as the obvious *mental* health outcomes.







-  In short, the sense of unfairness is a powerful mediator of how stress affects health. Put another way, feelings of unfairness *magnify* the effects of perceived stress on health.
-  Sense of fairness is conceptually related to a sense of *coherence* — a feeling that the world makes sense, that there is *order, predictability, consistency* and *purpose* to our lives. It is also related to trust, a sense that we are able to rely upon others and take comfort from this.
-  In a real way, then, fairness, purpose and trust are at the heart of the matter — they are the basic processes that drive the mechanisms of demand/control and effort/reward.

If demand/control and effort/reward are the limbs, then fairness, purpose and trust are the chambers of the heart.

## Do Employers Have a Duty to be Fair?

There is a growing tendency for Canadian courts, arbitrators and labour boards to declare the existence of a *duty of fairness* in a variety of legal contexts. Such a duty has been identified in the contexts of:

-  dismissal from employment (see *Wallace v. United Grain Growers Ltd.* (1997), 152 D.L.R. (4th) 1, a Supreme Court case)
-  the modification of terms to a collective agreement (see *Municipality of Metropolitan Toronto v. Canadian Union of Public Employees, Local 43* (1990), 69 D.L.R. (4th) 268)
-  harassment and discrimination (see *Janzen and Govereau v. Platy Enterprises Ltd.* (1989), 19 C.H.R.R. D/6205)
-  intentional or negligent infliction of nervous shock (see *Steeves v. R.* (1995), 11 C.C.E.L. (2d) 112 (F.C.T.D.))

These legal developments have created a climate in which high demand/ low control and high effort/low reward conditions — if substantiated by the evidence — could be made the subject of legal actions brought by employees against their employers based on what appears to be an emerging *general* duty of fairness in employment relationships.

The reason for predicting this type of legal action is based in part on the increasing number of judicial statements supporting the importance of work to employee well-being. For example, in a line of cases including *Wallace*, the Supreme Court of Canada has recognized the critical value of work in maintaining identity, self-esteem and emotional well-being:

“Work is one of the most fundamental aspects in a person’s life, providing the individual with a means of financial support and, as importantly, a contributory role in society. A person’s employment is an essential component of his or her sense of identity, self-worth

and emotional well-being.” (Iacobucci J. in *Wallace v. United Grain Growers Ltd.* (1997), 152 D.L.R. (4th) 1, quoting Dickson J. in *Reference Re Public Service Employee Relations Act (Alta.)*, [1987] 1 S.C.R. 313 at 368.)

In addition, there is a general principle underlying much of the discussion about fairness as a legal duty which is that the wielders of power (employers) “should exercise their authority with due regard for the personal dignity and autonomy of those who are subordinate to them.” (G. England, E. Christie and M. Christie (eds.), *Employment Law in Canada*, 3rd ed., 1998, at p. 10.13, section 10.21).

Consequently, legal statements such as the following are appearing with increasing regularity:

“A fundamental implied term of any employment relationship [is] that the employer will treat the employee with civility, decency, respect and dignity ... This appears to be part of the trend to establish a duty upon an employer to treat employees ‘reasonably’ in all aspects of the labour process.” (*Lloyd v. Imperial Parking Ltd.*, [1997] 3 W.W.R. 697 at 709)

A Canadian legal case directly involving the unfairness or unreasonableness of stress due to high demand/low control or high effort/low reward conditions is virtually waiting to happen, and employers might well ask themselves: Do we want to be the first to face the wrong end of a stress claim based on unfairness?

It is important to realize that all the types of legal action mentioned above make no reference to whether stress can be compensated under workers’ compensation rules. These rules vary enormously across jurisdictions and are too complex to review here.

Regardless of whether stress can be compensated, other legal remedies may still be available. See the section entitled: “Is There a Legal Duty to Abate Excessive Stress at Source Under Occupational Health and Safety Rules Concerning Due Diligence?” (p. 27).

## Special Note:

### How Excessive Stress Can Lead to Accidents and Injuries

Psychosocial hazards can lead to accidents and injuries in a direct or indirect manner.

#### ***Direct Pathway:***

When employees lack sufficient influence over hazardous conditions in the workplace, they lack the control necessary to abate threats to life and limb.

#### ***Indirect Pathway:***

(a) Certain stressors in the workplace, especially “high pressure” and “low control,” can contribute to accidents and injuries by making people, to one degree or another:

- sleep badly
- over-medicate themselves
- drink excessively
- feel depressed
- feel anxious, jittery and nervous
- feel angry and reckless (often due to a sense of unfairness or injustice)

(b) When people engage in these behaviours or fall prey to these emotional states, they are more likely to:

- become momentarily (but dangerously) distracted
- make dangerous errors in judgment
- put their bodies under stress, increasing the potential for strains and sprains
- fail in normal activities that require hand-to-eye or foot-to-eye coordination

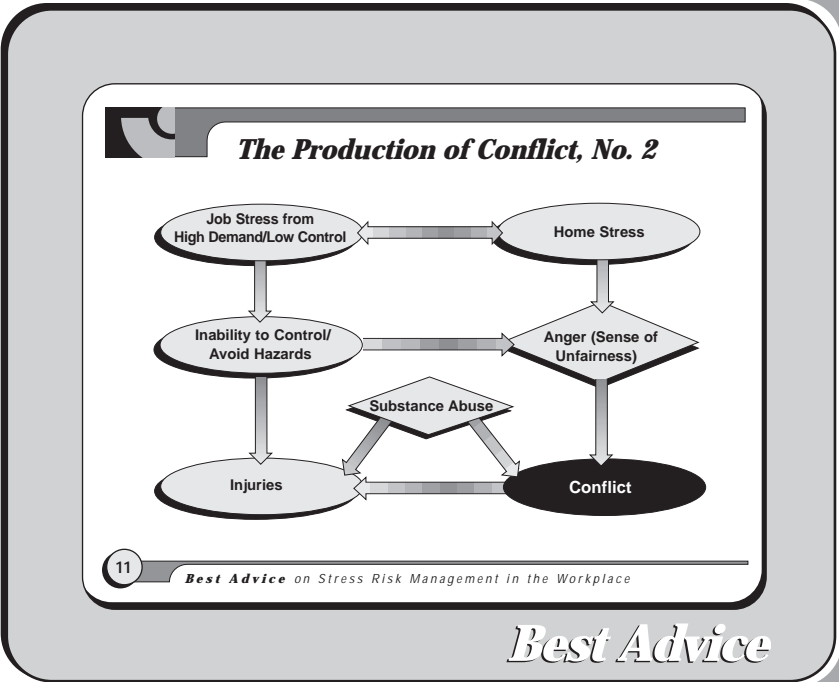
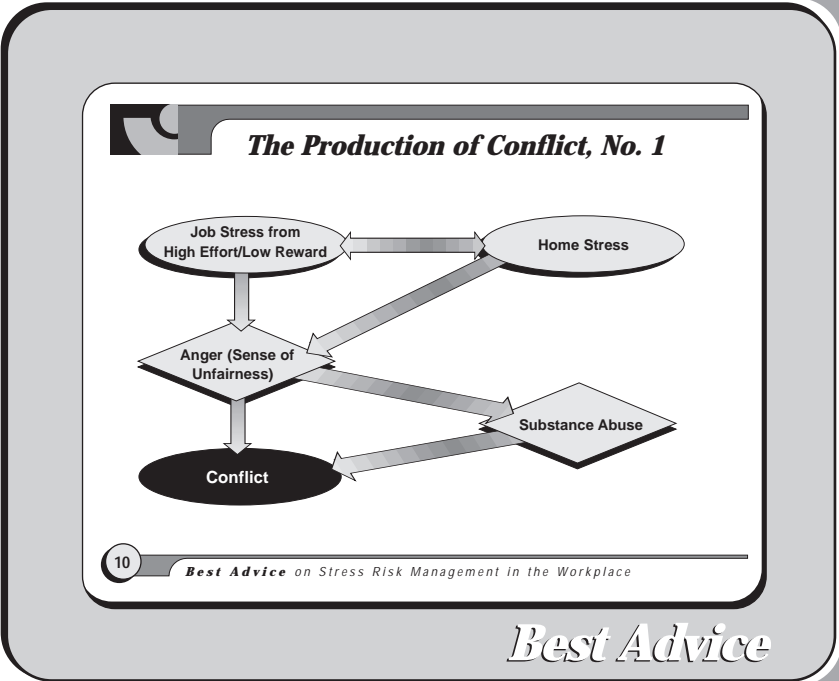
It is likely that high effort/low reward conditions are also implicated in injury causation.

**Special Note:**

**How Excessive Stress Can Lead to Conflict**

There is increasing concern in Canada about conflict in the workplace. Conflict is a good example of how harm can be produced in the workplace and of how this harm “spills over” into families and communities. (This is not to ignore or deny that employees bring conflict *from* home *to* the workplace as well: but our focus here is on how the workplace can either turn this homemade conflict into something serious — e.g., violence, injuries — or defuse it.)

Overheads 10 and 11 show how the organization of work can *produce* conflict through the engines of high effort/low reward and high demand/low control conditions.



Note how these conditions of work produce conflict by creating a sense of *unfairness* or *injustice*: “it is not *fair* that I do not have enough influence over my work; it is not fair that I am not recognized or rewarded for my efforts.”

Conflict may be outer-directed toward others, or inner-directed toward self. Sometimes the conflict may be both outer- and inner-directed. Conflict is a prime example of how harm produced inside the workplace can *spill over* into the community.

**Expressions of Conflict**

<b>Outer-directed</b>	<b>Inner-directed</b>
⊗ threatening behaviour	⊗ suicidal behaviour
⊗ emotional and/or verbal abuse	⊗ recklessness
⊗ bullying	⊗ agitated depression
⊗ harassment	⊗ abuse of alcohol, drugs (can lead to externalization of conflict also)
⊗ assault	
⊗ domestic violence	
⊗ road rage	

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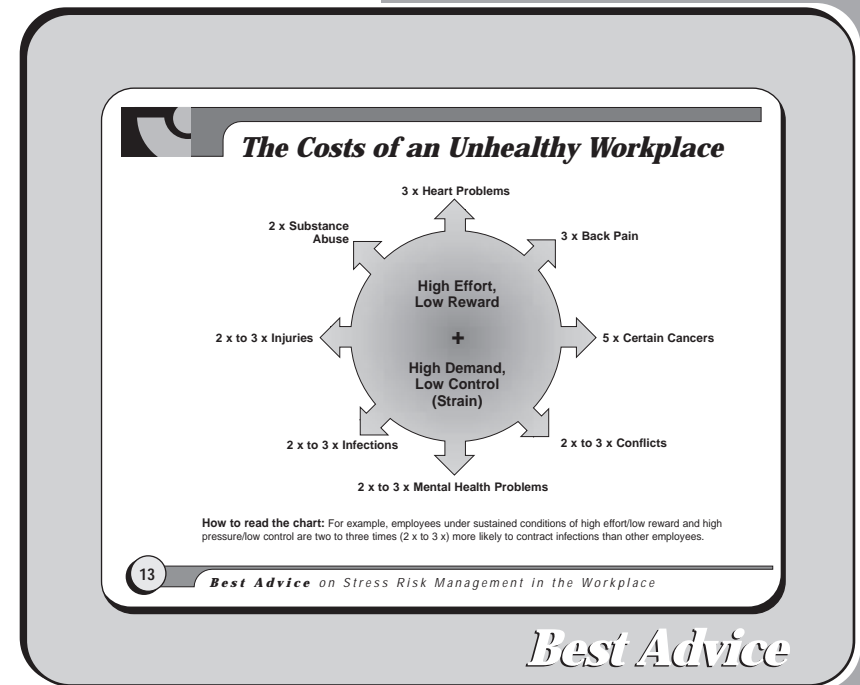
## Stress, Health and Safety: Emerging Facts

1. High demand/low control conditions *at the extreme* (highest 25 percent demand level, lowest 25 percent control level) compared with high demand/high control and low demand/high control conditions are associated with:
  - more than double the rate of heart and cardiovascular problems (Indeed, these conditions are said to be the equivalent of smoking, being overweight, being unfit and eating poorly.)
  - significantly higher rates of anxiety, depression and demoralization
  - significantly higher levels of alcohol, and prescription and over-the-counter drug use
  - significantly higher susceptibility to a wide range of infectious diseases

(See References 6, 9, 17, 19, 26, 42.)

2. High effort/low reward conditions *at the extreme* (highest 33 percent effort level, lowest 33 percent reward level) compared with high effort/high reward conditions are associated with:
  - more than triple the rate of cardiovascular problems
  - significantly higher incidence of anxiety, depression and conflict-related problems

(See References 1, 38.)



3. High demand/low control conditions and high effort/low reward conditions are associated with:
  - higher incidence of back pain (up to three times the rates found in high demand/high control and high effort/high reward conditions)
  - higher incidence of repetitive strain injuries (RSIs) (excess rates of up to 150 percent have been reported)

(See References 30, 34, 35, 36, 39.)

4. A combination of high demand/low control and high effort/low reward conditions are implicated, along with other more general workplace stressors, in the precipitation of colorectal cancer. People experiencing such adverse conditions had over five times the rate of colorectal cancer in one recent well-conducted study.

(See Reference 3.)

5. There is good evidence that all these health and safety outcomes can be modified by introducing changes to the organization of work with particular attention being paid to increasing control and reward conditions. In other words, individual health and safety outcomes are *responsive* to organizational changes. Stress *can* be abated “at source” and this *will* produce positive health and safety outcomes.

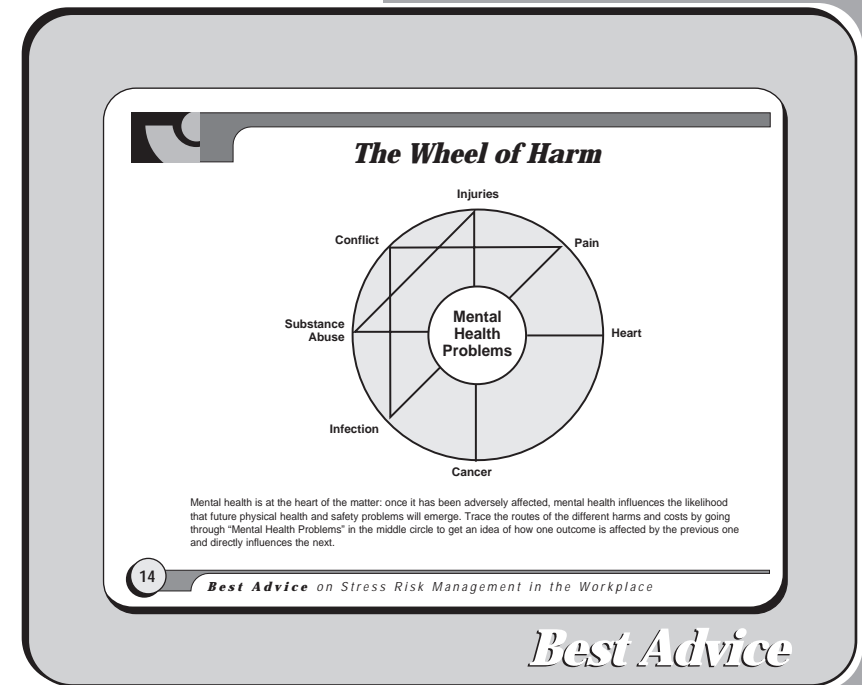
(See References 4, 6, 8, 16, 18, 22, 23, 29.)

6. While other stressors are undoubtedly involved in the development of illnesses and in the chain of causation leading to injuries, high demand and low control coupled with high effort and low reward conditions play a disproportionately important role in this regard.
7. From a workplace health and safety policy point of view, these conditions are clearly the prime targets.

## Relationships Between Harms and Costs

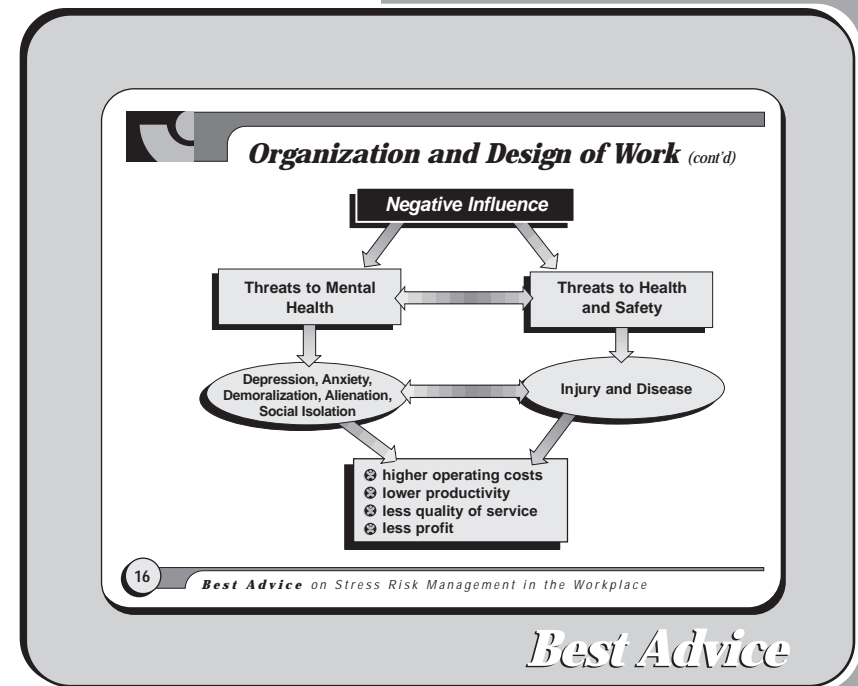
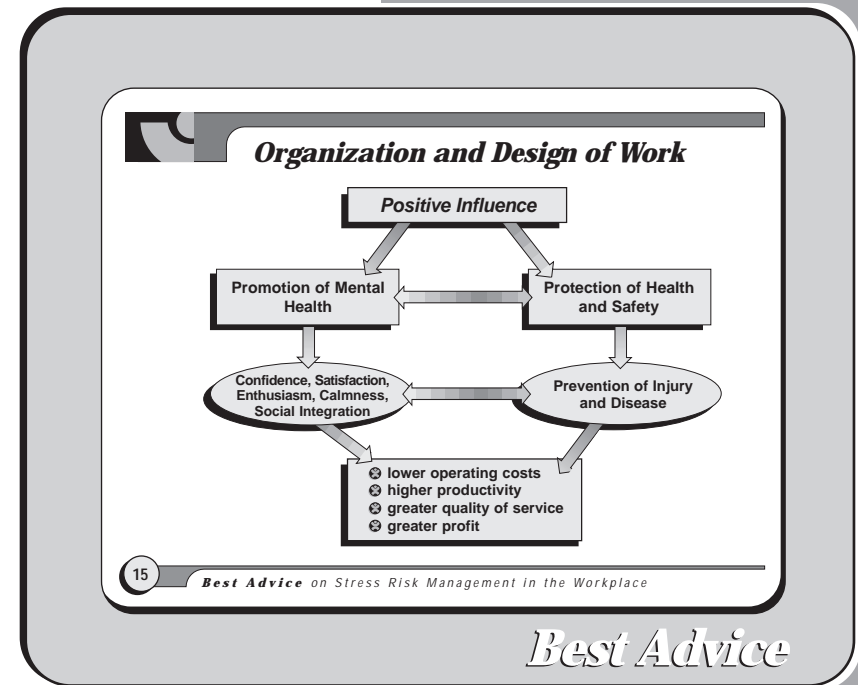
Many of the harms and costs we have just reviewed are related to one another, as Overhead 14 demonstrates, e.g., conflict/injuries and substance abuse/conflict/injuries.

Mental health is at the heart of the matter since, in many cases, conditions of work affect it first — in particular, high demand/low control, high effort/low reward. Once mental health has been adversely affected (through anxiety, anger or depression), many other physical health and safety problems are likely to emerge.



## Summary of What We Know

The organization of work produces health, productivity, stress, illness and injuries just as it produces services and things. Overheads 15-18 summarize what we know about this process.



## Consequences of Excessive Stress

### Mental Consequences

- ⊗ rushed, stressed and helpless
- ⊗ abused
- ⊗ nervous
- ⊗ depressed
- ⊗ angry and upset
- ⊗ careless and reckless
- ⊗ lack of concentration
- ⊗ easily distracted

### Physical Consequences

- ⊗ eat poorly
- ⊗ drink excessively
- ⊗ use too many medications
- ⊗ no time for exercise
- ⊗ sleep poorly
- ⊗ prone to infections
- ⊗ more likely to get injured
- ⊗ higher cardiovascular risk

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## Consequences of Excessive Stress (cont'd)

### Social Consequences

- ⊗ ability to form and maintain relationships is threatened
- ⊗ more socially isolated
- ⊗ more quarrelsome and argumentative

### Economic Consequences

- ⊗ waste time
- ⊗ likely to damage things
- ⊗ high absenteeism
- ⊗ less creative
- ⊗ less productive
- ⊗ less efficient
- ⊗ less courteous with customers
- ⊗ high medical and drug claim costs

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