

BodyCare

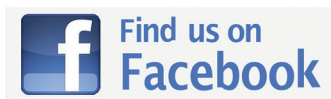
Manual Handling



HealthCo

Sustainable Healthier Communities

Share your opinion on health - join the conversation



www.facebook.com/HealthCoIreland



www.twitter.com/HealthCoCulture



[www.linkedin.com/
company/ healthco.](http://www.linkedin.com/company/healthco)

www.healthco.ie

© 2016 HealthCo DM Ltd. All rights reserved.

No part of this booklet may be reproduced, in any form or by any means,
without permission in writing from HealthCo DM Ltd.

PARTICIPANT WORKBOOK CONTENTS

1. Welcome to HealthCo	04
2. Pre Back Care Survey	05
3. Today's Timetable	06
4. Injuries and Manual Handling	07
5. Prevention of Back Pain	08
6. Ergonomics	09
7. Manual Handling in the Workplace	09
8. Risk Assessment	10
9. Safe Handling Principles	11
10. Case Study - Manual Handling in Construction	12
11. The Costs	14
12. Risk Assessment Activity	15
13. Questions	16
14. My Health Commitment	17
15. Participant Evaluation	18

Welcome

HealthCo is all about making positive health choices to the benefit of our family, our work and ourselves.

Our mission is to keep you healthier for longer.

We want you to make that commitment to yourself.

HealthCo will help you out by creating a work environment that makes it easier for you to make positive health choices. We provide a simple set of services that will optimise the investment an employer makes for the betterment of employee health. Every single staff member of your team is very important to us and we will make sure that they are provided with the right support and environment to achieve their health goals, helping them to perform and take their role to the next level.

We have a vision of a healthy culture at your company being the cornerstone that brings you into the future with confidence.

Make your commitment today!

Many thanks,
The team at HealthCo.

Pre Back Care Tutorial Survey

Overview

If we measure how you rate back care interventions, we can enhance what you feel is important and remove items that you feel are unnecessary. By answering the very short questions here, you are giving us the ability to achieve these goals.

All information received is anonymous and used only for the purposes described above.

1. Have you experienced back pain within the last 4 weeks?

- ☐ Yes ☐ No

2. Have you had to take time off work as a result of back pain in the past year?

- ☐ No ☐ One day or less ☐ More than one day

3. In your experience, what has caused you back pain?

.....

.....

4. In your experience, what do you feel is the most important element in preventing back pain?

.....

.....

5. Which of these terms would best describe the activity level of your job?

- ☐ Completely sedentary
☐ Mostly sedentary
☐ Evenly mixed
☐ Mostly active / manual
☐ Completely active / manual

6. What is your age?

- ☐ 18-24
☐ 25-34
☐ 35-44
☐ 45-54
☐ 55-64
☐ 65-74
☐ 75 or older

7. Are you male or female?

- ☐ Male
☐ Female

Today's Timetable

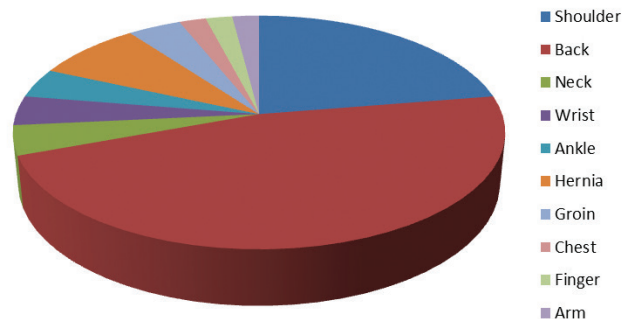
09.00 - 09.15	Introduction
09.15 - 10.15	Safe Manual Handling at Work
10.15 - 10.30	Exercise Workshop - TILE Risk Assessment
10.30 - 10.35	Feedback & Discussion
10.35 - 10.50	BREAK
10.50 - 12.15	Manual Handling Practical
12.15 - 12.45	Your Health & Backcare
12.45 - 13.00	Test

What do we want to achieve?

We want to keep you healthier for longer. Through this course we'll achieve this by focusing on the manual aspect of your job.

What are the risks involved in manual handling?

The most widely held belief is that manual handling is all about back pain risk and whereas the risk of hurting your back is significant, it's not the only part of your body you could hurt whilst handling workplace materials. A review of the claims facilitated by a major UK legal company¹ demonstrates the mix of injuries:



Back Pain

Low back pain affects 60-70% of the population over the course of their lifetime, it tends to be a recurring condition that is difficult to determine the exact stage of onset. As such, the exact causes of low back pain are also difficult to determine. Only around 5-15% of cases can be isolated to a specific cause, for example infection, tumour, vertebral fracture, thus in the remaining 85-95%, the exact cause is unclear. To that extent several correlating risk factors are associated with back pain prevalence:

- Stress, anxiety, depression and low self-esteem
- Body height and weight; taller and heavier people being more at risk
- Occupational type; long duration, repetitive physical work patterns.

Even these risk factors are highly disputed however, for example is back pain the cause of depression anxiety etc. and with the changing nature of the modern workplace whether these apply in today's workplace is hard to determine. The peak prevalence of the condition occurs between the ages of 40 to 55 years old, which in part explains its major detrimental impact on performance in the workplace. This impact is felt by both the individual in terms of lost earnings and career progression and by the employer through a negative effect on employee performance and insurance pay-outs. In true Pareto principle style however, it has been estimated that only 5% of the people with back pain disability account for 75% of these costs.²

Treatment options for back pain are varied and their success also quite subjective. Medication is common using a variety of painkillers, medical surgery is an option that is only used when all others have failed due to its often ineffectiveness at eliminating pain sensation. There is some preference amongst sufferers to alternative therapies such as acupuncture, chiropody etc.³ In terms of both prevention and treatment⁴, the most widely accepted analysis is appropriate modes of exercise which is achievable, low risk and has knock on benefits such as decreased cardiovascular disease risk also.

Exercise

There is an overwhelming body of evidence that demonstrates how exercise is helpful in both the prevention and treatment of back pain. Pilates has been one of the most studied forms of exercise due to its strengthening

effects on your core muscles. The most recent reviews demonstrate a significant helpful effect of Pilates and other forms of exercise in alleviating chronic low back pain.⁵

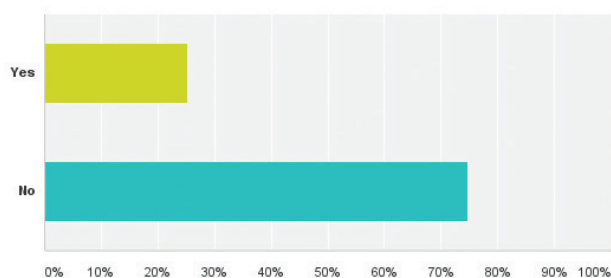
In order to prevent back pain from occurring in the first place, exercise can also be of help. Short and simple exercise programs delivered in the workplace can decrease incidence of back pain.⁶ The body of evidence suggests that this is even more effective in combination with training, ergonomic assessment and aids in both the prevention of back pain as well as sick leave associated with low back pain.⁷

HealthCo Data

Using our own data collected performing manual handling training; we find that 25% of participants have experienced back pain the past four weeks, however just over 10% have had to take time off over the past year as a result of back pain.

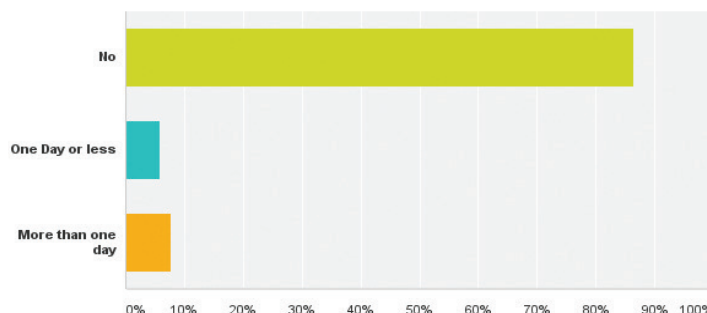
Q1 Have you experienced back pain within the last 4 weeks?

Answered: 155 Skipped: 0



Q2 Have you had to take time off work as a result of back pain in the past year?

Answered: 155 Skipped: 0



It is fair to say that back pain is not serious for most of us most of the time. However even at these numbers, in the long term, this presents a significant issue for ourselves and our employer. As regards what causes injury, again our participants have their finger on the pulse. By far the two most frequently used words were:

- Lifting and,
- Heavy

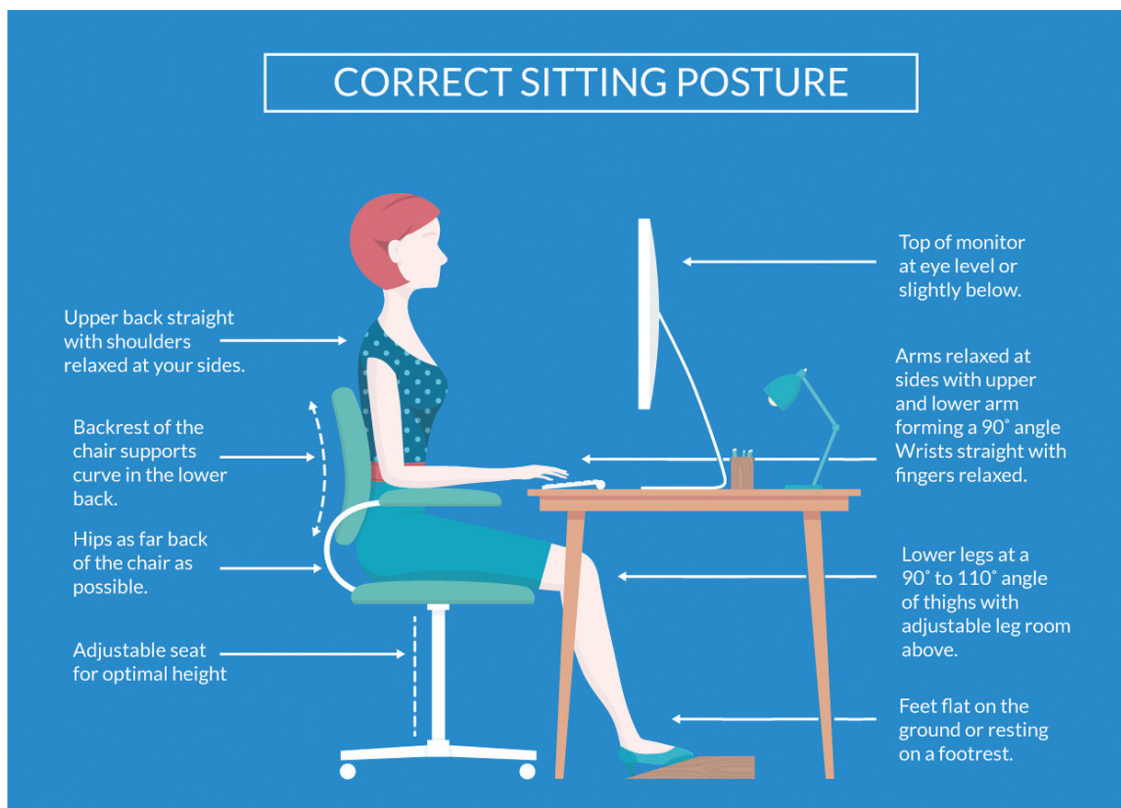
Cross referencing this with the legal cases mentioned at the beginning, most litigation involves heavy tasks or tasks that require a lot of force. Therefore we must make good decisions when we feel we may be attempting a task that is pushing beyond our physical comfort zone.

References

1. Thompsons Solicitors. 2016. Workplace manual handling compensation claim. Available at: <http://www.thompsons.law.co.uk/workplace-accidents/claim-manual-handling-accidents-work.htm>
2. Duthey B. 2013. Background paper 6.24. Priority Medicines for Europe and the World. World Health Organisation. Available at: http://www.who.int/medicines/areas/priority_medicines/BP6_24LBP.pdf
3. Hayden J, van Tulder MW, Malmivaara A, Koes BW. 2005. Exercise therapy for treatment of non-specific low back pain. Cochrane Database of Systematic Reviews, Issue 3. Available at: <http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD000335.pub2/abstract;jsessionid=A5D676205FD3B1A8B4267E400B2B4E5A.f01t01>
4. <http://www.backcare.org.uk/treatment>
5. Lin HT, Hung WC, Hung JL, Wu PS, Liaw LJ, Chang JH. 2016. Effects of Pilates on patients with chronic non-specific low back pain: a systematic review. Journal of Physical Therapy Science. Oct; 28(10):2961-2969. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/27821970>
6. White MI, Dionne CE, Warje O, et al. 2016. Physical Activity and Exercise Interventions in the Workplace Impacting Work Outcomes: A Stakeholder-Centered Best Evidence Synthesis of Systematic Reviews. Int J Occup Environ Med. 2016 Apr; 7(2):61-74. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/27112715>
7. Steffens D, Maher CG, Pereira LS et al. (2016) Prevention of Low Back Pain: A Systematic Review and Meta-analysis. JAMA Internal Medicine. Feb; 176(2):199-208 Available at: <https://www.ncbi.nlm.nih.gov/pubmed/26752509>

Ergonomics

This is how effective the work environment has been designed to maximise the ease and effectiveness of employee activities. It can include well organised storage that minimises risks associated with reaching, computer based workstations that facilitate positive employee posture or mechanical equipment that facilitates movement of objects or people, for example a hoist. It is a key element to be considered when assessing how your workplace operates and done well, can contribute both to decreased safety risk and improved productivity.



Manual Handling In the Workplace

By law there are regulations which govern manual handling in the workplace. Broadly speaking your employer must do all that is reasonably practicable of them to ensure your safety, health and welfare at work¹. Specifically in terms of manual handling they are required to avoid manual handling where possible and reduce the risks associated with handling, where handling is unavoidable². Reducing risk can be achieved by risk assessment, planning and staff guidance. It is the duty of the employee to cooperate with the employer in achieving the above points and if there is anything preventing this, to report it to their employer¹.

1. *Safety, Health and Welfare at Work Act 2005*

2. *S.I. No. 299/2007 – Safety, Health and Welfare at Work (General Application) Regulations 2007*

Risk Assessment

There are a variety of risk assessment tools to assist staff in controlling hazards in their workplace. The most generic risk assessment involves an estimation of the likelihood and severity of the consequences of an incident should it occur (*Figure 1.*)

Performing this initial assessment of all manual handling activities within an organisation will enable the employer to prioritise actions to mitigate against the hazards identified. Beginning with the risks that scored a 9, the employer details an assessment process that analyses the manual handling task, breaking the components using the TILE model (below). The employer should document this assessment process for evidence of having complied with the Safety, Health and Welfare at Work Act and further should issue procedures to staff which detail how each task should be carried out.

In practice there is often a level of unpredictability about handling tasks that we perform. In order to help staff to consider this effectively the dynamic risk assessment approach LIFT, will help.

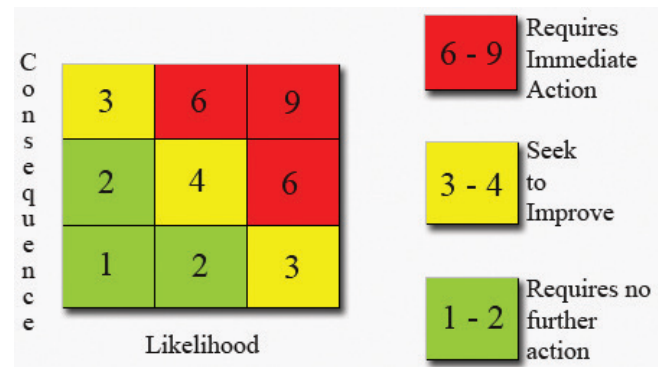


Figure 1. Generic Risk assessment tool

Load	Referring to the inanimate load: Weight, size, bulk, difficulty to grasp, sharp edges etc. Referring to the person in care: Falls history, pain, lines, infection, skin condition, physical ability, weight bearing capacity, movement aids, communication ability, sensory impairment, cognitive impairment etc.
Individual	Referring to the staff member: Physical suitability to carry out the task, suitable clothing and footwear, knowledge and training in how to perform the task, pregnant, injury etc. How many staff are necessary if task requires a team?
Task	Referring to the task to be completed: Frequency, duration, rest periods, fixed work rates, involves twisting, sudden movements likely etc.
Environment & Equipment	Environment – Trip and slip hazards , traffic, heights, stairs, clutter Equipment that might make the task safer? Objects – Trolleys, wheelbarrow, conveyor, forklift, bag, suitcase etc.

In conducting all risk assessments we should aim to achieve resolve the safest, most ergonomic method of performing the required task. As noted earlier, the law encourages us to avoid handling tasks as a first priority. If however manual handling is unavoidable, through risk assessment we will have done our utmost to ensure that we are continuing in the safest possible manner.

Safe Handling Principles

In 2003 the UK Health and Safety Executive¹ published guidelines for staff involved in manual handling practices. The guidelines take the form of eleven principles of handling:

1. Think before you lift;
2. Keep the load close to your waist;
3. Adopt a stable position;
4. Ensure a good hold on the load;
5. At the start of the lift, moderate flexion (slight bending) of the back, hips and knees is preferable to fully flexing the back (stooping) or the hips and knees (squatting);
6. Don't flex your spine any further as you lift;
7. Avoid twisting the trunk or leaning sideways, especially while the back is bent;
8. Keep your head up when handling;
9. Move smoothly;
10. Don't lift more than you can easily manage;
11. Put down then adjust.

In detail, these provide us with instructions on how we should approach all manual handling and are adaptable to any given manual handling task. They provide us with a useful template to help us review how we are performing tasks currently and should help us to improve our practices over time.

Finally all of this can be difficult to recall effectively in the hustle and bustle of our workplace. Our principles of handling are short in order to help you remember them all of the time, so distilled, our three principles of handling as you go about your daily work are:

Think!
Stabilise your core
Move using legs and arms

We hope you find this information useful in taking care of the health of your body. Feel free to give us feedback at info@healthco.ie

1. Graveling R, Melrose A, Hansen M. 2003. *The Principles of Good Manual Handling. Achieveing a Consensus.* Health and Safety Executive. Available at: <http://www.hse.gov.uk/research/rrpdf/rr097.pdf>

Case Study: Manual Handling in Construction

THE FIVE STEPS OF MANUAL HANDLING RISK ASSESSMENT FOR EMPLOYERS

1. Understand how the manual handling task is carried out
2. Collect all the technical details
3. Identify the problems or risk factors that need to be improved
4. Agree and implement the positive changes to minimise the health effects to workers
5. Review

The five steps in a manual handling risk assessment process are explained in the case study below.

The work activity involves replacing a ceiling on the fourth floor of an existing office space. There is a goods lift available at ground level. (See also Appendix 1 for an example of a manual handling risk assessment worksheet.)

Step 1: Understand how the manual handling task is carried out

This involves collecting information on how the work activity is performed and identifying the key stages in the task. It should be a team effort involving consultation with people who normally do the job. Typically this would be the person carrying out the work activity on-site, a foreman or health and safety officer. The person carrying out the assessment should have a thorough practical understanding of the type of manual handling tasks being carried out.

There are a number of stages in the task of replacing the ceiling: - The truck arrives with 60 boxes of ceiling tiles. Each box weighs 20kg - The boxes are not stored on pallets - The ceiling tile boxes are lifted manually off the truck, carried to the goods lift and then brought on the lift to the fourth floor - The ceiling boxes are then lifted from the goods lift to the work area on the fourth floor.

Step 2: Collect all the technical details

It is important to collect good quality information about the task. Technical information may include the load's weight and size, the physical measurements of the work area, the number of manual lifts required to complete the task and general information on the work environment such as access routes. It is good practice to take photographs of the work task and the work environment, as this makes it easier to visualise potential hazards. All this data can be collected while observing the task. At that point, it is advisable to consult with others in order to write up the relevant information and discuss alternative ways of completing the task with less risk.



Examples of technical details collected in relation to the work activity of ceiling replacement:

- The weight of the box of ceiling tiles is 20kg
- The boxes are not stored on pallets
- There is repetitive lifting of the boxes of ceiling tiles: there are 60 boxes in total to be lifted from the truck to the goods lift and from the goods lift to the work area on the fourth floor
- The boxes have to be carried over a long distance from the truck to the fourth floor
- There are two workers involved in this operation: one worker places the box of ceiling tiles at the edge of the truck and the other lifts from the truck and takes the boxes to the fourth floor.

The information you collect at this point will be critical to understanding whether there are manual handling risk factors that need attention.

Step 3: Identify the problems or risk factors that need to be improved

The next step of the process is to identify the unfavourable ergonomic conditions or risk factors that could contribute to the risk of back injury. The work activity of replacing the ceiling includes a number of unfavourable ergonomic conditions/risk factors:

- **Task:** There is over-frequent physical effort involving the spine
- **Individual:** The physical effort of lifting of up to 60 boxes is repetitive and too strenuous
- **Load:** Load is too heavy to lift over a long distance
- **Environment:** Carrying and lifting distances are excessive.

Once the risk factors have been identified, it is necessary to investigate potential solutions.

Step 4: Agree and implement positive changes to minimise the health effects to workers

Efforts should be made to investigate whether the work activity can be organised to allow the use of mechanical or other means that avoid or reduce the need for the manual handling of loads. It is necessary to evaluate the controls that are feasible for each problem. The rationale for deciding on a control measure must be clearly documented and should outline how the suggested measure will avoid or reduce risk of injury. Consultation is necessary at this stage to ensure that all parties work together to determine whether the recommended measures are practical, to solicit feedback on other possible controls and to ensure the effective implementation of the plan of action. A safe system of work should be detailed in Step 4 to explain the control measures. The system of work can be a combination of the following:

- Use of handling equipment (how is it used)
- Reorganisation of work area (what changes are made)
- Handling techniques (how is it done)

The purpose of a safe system of work is to demonstrate evidence that appropriate measures are in place to avoid or reduce the risk of injury. The safe system of work should take account of the handling required from origin of lift to end point of lift, and the control measures should be incorporated into a manual handling training programme.

In the work activity of ceiling replacement, changes were put in place to address the unfavourable ergonomic conditions identified. These changes are detailed below:

- The ceiling tiles arrive to site on pallets and are transferred off the truck using the taillift
- The pallets are then transferred to the goods lift using a pallet truck and are transferred to the fourth floor on the goods lift
- The contractor requested a lighter ceiling tile, resulting in a lighter box weight of 17kg

The introduction of any control measure, such as a mechanical aid or a new work layout, means the introduction of a new system of work. This new system of work must also be assessed to ensure that any new hazards are identified and controlled.

Step 5: Review

Effectiveness is the degree to which the control measures have avoided or reduced the risk of injury. Their success will depend on the timely implementation of changes and the level of worker acceptance. The picture below shows that the pallet of ceiling tiles is transferred to the goods lift using a hand pallet truck and is then transferred to the fourth floor in the goods lift. This new system of work is the outcome of the risk assessment and it has resulted in reduced manual handling when transferring ceiling tiles from the truck to the work area on the fourth floor.

The Costs:

Each organisation will have its own data on how many days and hours of work are lost as a result of manual handling related incidents. If you don't you're wasting your profits! Differences are not associated with sector but with how well the organisation manages its operations.

If the incident goes beyond working time lost it can end up in the courts. Sometimes parties settle and sometimes the dispute goes through the Injuries Board. The vast majority of incidents come to a conclusion at this point however some of the more hostile cases end up in court.

These are an opportunity for all of us to learn from others' mistakes. Firstly the range of outcomes can be significant. In 2016 there were two cases and in one the employer successfully appealed a €67,450 award and in the other, the plaintiff was awarded €153,000. The stakes are clearly high.

There are several key consistencies in all court scenarios:

- Disputes take years to come to a conclusion
- Employers require evidence to demonstrate their risk assessment/policies/training/supervision
- Tick the box forms do not entertain judges!
- The best way to avoid court is to prevent your staff getting injured.

Pop quiz: In which sector are you most likely to hurt your back?



Activity

Name

Date

Complete the risk assessment below for a task that you carry out in your work environment.

Load	
Individual	
Task	
Environment & Equipment	

Action Points

.....

.....

.....

.....

Completed Date

Review Date

Signed

Questions:

1. Through manual handling in the workplace I am at risk of hurting (please circle):

- a. My arm
- b. My back
- c. My shoulder
- d. All of the above

2. What age group is most at risk of experiencing back pain?

.....

3. What do you feel you could do to prevent back pain from affecting you in the future?

.....

4. Name one duty of the **employer** in relation to manual handling?

.....

5. Name one duty of the **employee** in relation to manual handling?

.....

6. What does LITE stand for?

.....

7. What are our three principles of good back care?

.....

.....

.....

.....

PRINT NAME:

.....

SIGNED:

.....

DATE:

.....

My health commitment

I would like to
.....
..... to improve my health.

<u>Design element:</u>	<u>Behaviour to change:</u>
Priming	
Default	
Commitment	

Priming: Like a suggestion, priming is a purposeful arrangement of your environment that helps initiate a desired behaviour. For example by setting out our exercise clothing in our wardrobe we are more likely to actually go exercise than if we had to choose what to wear immediately pre-exercise or by introducing soft light in a room we are more likely to be relaxed when in that space.

Default: We are much more likely to go with the flow, leaving things as they are so to speak. By actively setting up some positive defaults in your lifestyle, you will aid your achievement of some longer term goals. For example a common default is to immediately get changed into more casual clothing after returning home from work. A more pre-conceived default is to set up a standing order to transfer wages out of your bank account into a savings account on pay day, rather than having to perform this task manually on each pay day.

Commitments: Simply put we are more likely to do something if we have committed to it. To make commitments more cast iron we should write them down or make them public. A word of note: begin with bite sized commitments, making many small successes en route to your bigger goal. For example this could mean 'I am not going to have a cigarette today' on the way to 'I am going to give up smoking'.

Participant Evaluation

We hope that you have found today's program beneficial and what is more we would be really pleased if it assists you in achieving your health goals. The following brief questions will aid with the summation of today's session and will assist us in developing our programs to better suits your health needs.

What particular part of today's course did you feel was of most benefit to you?

How do you rate today's session? (please circle)

1☆ 2☆ 3☆ 4☆ 5☆

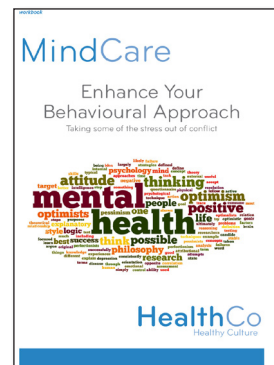
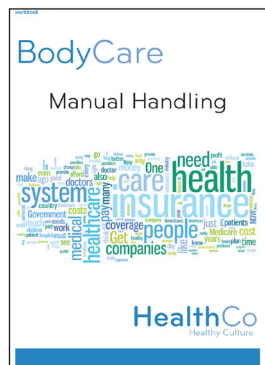
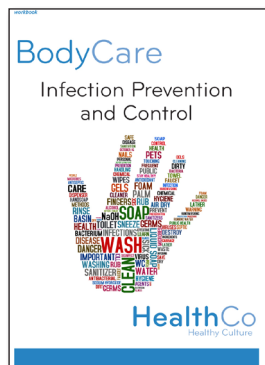
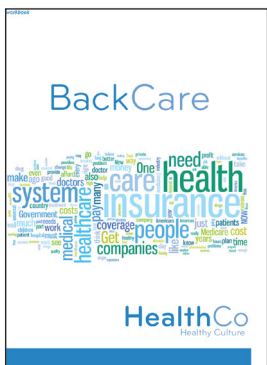
Any other comments:

MY NOTES

The staff of HealthCo thank you for your participation in our programme. If we can be of any other assistance to you, your organisation, or your colleagues, please do not hesitate to contact our office.

HealthCo
Station House,
Fairgreen,
Carlingford,
Co. Louth,
IRELAND A91 CV06
Phone: 042 9419725
info@healthco.ie
www.healthco.ie

Check out our range of bespoke training courses



HealthCo
Sustainable Healthier Communities