Heart Manual Workshop

Bob Lewin

www.cardiacrehabilitation.org.uk

The Plan

Basic info about the HM / HG / HP

- What is the evidence for it?
- What is it
- How is it used ?
- What are the main elements

- The theory?
- Some pictures
- The materials
- Practice? Role play – yes YOU

Feedback

ELSEVIER

International Journal of Cardiology 111 (2006) 343 – 351

International Journal of Cardiology

www.elsevier.com/locate/ijcard

Review

Home-based cardiac rehabilitation compared with centre-based rehabilitation and usual care: A systematic review and meta-analysis

Kate Jolly [a], Rod S. Taylor [a], Gregory Y.H. Lip [b,*], Andrew Stevens [a]

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Received 5 May 2005; received in revised form 28 September 2005; accepted 5 November 2005
Available online 28 November 2005

Results: Eighteen included trials for home versus usual rehabilitation and six trials of home versus supervised centre-based rehabilitation were identified. The home-based interventions were clinically heterogeneous, trials often small, with quality poorly reported. Compared with usual care, home-based cardiac rehabilitation had a 4 mm Hg (95% CI 6.5, 1.5) greater reduction in systolic blood pressure, and a reduced relative risk of being a smoker at follow-up (RR 0.71, 95% CI 0.51, 1.00). Differences in exercise capacity, total cholesterol, anxiety and depression were all in favour of the home-based group. In patients post-myocardial infarction exercise capacity was significantly improved in the home rehabilitation group by 1.1 METS (95% CI 0.2, 2.1) compared to usual care. The comparison of home-based with supervised centre-based cardiac rehabilitation revealed no significant differences in exercise capacity, systolic blood pressure and total cholesterol.

The evidence for the Heart Manual

- Home based post MI rehabilitation programme
- A work book, diaries, record sheets and information
- Relaxation programme on tape
- A specially trained 'Facilitator'

Initial RCT less anxiety & depression: better quality of life: 30% fewer readmissions to hospital: fewer visits to GP in first 6 months
Lewin, Lancet, 1992; 339:1036-1040

Also randomised trials by - Linden B, 1995: O'Rourke A, 1999: Dalal HM, BMJ 2003, Jolliffe J, 2006 (in press)

Approx 15,000 patient a year using it across UK and Ireland

Increasing attendance at CR - CHARM study – Dr Hayes Dalal

Many patients don't want to be in a group and may not take part in CR if it is the only method on offer.

Heart Manual patient activity diary used to measure adherence
Hospital Based attendance at ≥4 sessions

Heart Manual 44% **Hospital-based 33%**

	Heart Manual	Hospital-based
did not complete	13%	51%
completed	87%	49%

(y-axis: 0, 10, 20, 30, 40, 50)

Dalal HM, *BMJ* 2003

Home-based versus hospital-based rehabilitation after myocardial infarction: A randomized trial with preference arms — Cornwall Heart Attack Rehabilitation Management Study (CHARMS)

H.M Dalal, P.H. Evans, J.L. Campbell, R.S. Taylor, A. Watt, K.L.Q. Read, A.J. Mourant, J. Wingham, D.R. Thompson and D.J. Pereira Gray

Conclusions

Home-based cardiac rehabilitation with the *Heart Manual* was as effective as hospital-based rehabilitation for patients after myocardial infarction. More patients wanted to practice rehabilitation at home than in the hospital, more home patients than hospital patients kept up their new lifestyle to 12 months.

Increase in fitness is the same as Hospital based rehab

Andrew Coats, Jenny Bell, RCT vs. Hospital based rehabilitation, main outcome physical fitness

6 weeks hospital based CR 2 METs increase

6 weeks Heart Manual 2 METs increase

Recommended by – WHO

UK Department of Health:

Scottish Office

Scottish and UK CR Clinical Guideline

The UK National Institute for Health and Clinical Excellence (NICE)

The National Institute for Health and Clinical Excellence: NICE

Post MI Full Guideline – Final Version – May 2007

5.4 Education and information provision

5.4.1 Evidence statements for education and information provision

5.4.1.1	Education and stress management programmes reduce cardiac mortality and MI recurrence in post MI patients (1++).
5.4.1.2	Education/stress management programmes may aid in return to work (1+), and reduce anxiety after a 3 month recovery period following an MI (1+).
5.4.1.3	Use of the Edinburgh Heart Manual reduces anxiety and depression and increases perception of control over illness (1+).

The National Institute for Health and Clinical Excellence: NICE. Post MI Clinical Guideline

5.1.3.1	Comprehensive cardiac rehabilitation programmes should include health education and stress management components (Grade A).
5.1.3.2	A home based programme validated for patients who have had an MI (such as 'The Edinburgh heart manual'; see http://www.cardiacrehabilitation.org.uk/heart_manual/heartmanual.htm) that incorporates education, exercise and stress management components with follow-ups by a trained facilitator may be used to provide comprehensive cardiac rehabilitation (Grade A).
5.1.3.3	Most patients who have had an MI can return to work. Any advice

The Role of Home Based or Self-Management Programmes is ……

NOT to replace hospital based rehabilitation but another tool to use in rehabilitation.

NOT as a low-cost or low-quality version of Centre Based rehabilitation it often costs the same because it may involve more 1 to 1 than conventional CR programmes.

NOT a threat to the jobs of rehabilitation teams whose expertise is still essential and requires at least 8 hours additional study.

NOT just about secondary prevention.

Comprehensive online and written training in CBT techniques and how to use them.

No one can access the materials without having completed the training.

REPEAT - this is a tool, only available to proper CR staff.

Not a cheap, low class, rip-off of CR – it is the Mercedes Class option – 'would Modom prefer her rehabilitation at home or in the hospital?'

Mega bonus - comes with Multi-ed Medical Australias interactive education modules on CD for staff and patients.

Have you noticed that a lot of your clients are not keen on academic pursuits?

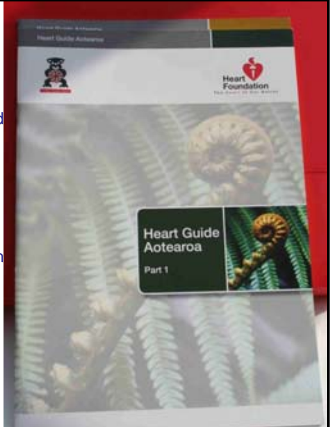
Have you noticed that they spend less time in libraries than might be desirable?

Have you noticed that some haven't read a whole book since they left school?

Everything they need to read is in the very slim Part 1.

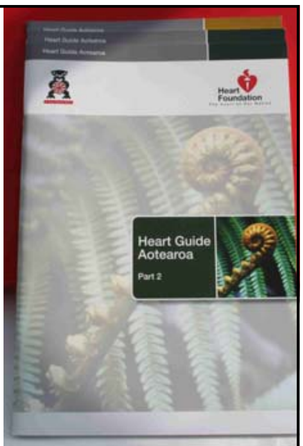
Also it is mostly in cartoon format.

Extensive testing in NZ, UK and Canada shows it is highly acceptable to patients



Part 2 is menu based

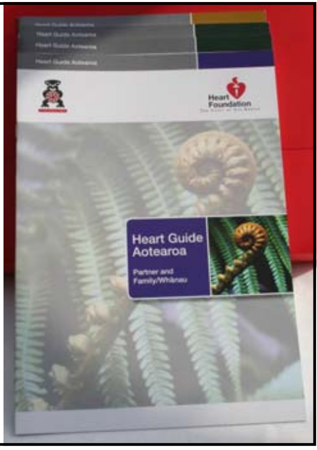
Patients pick the bits that apply to them and only need to read that part.

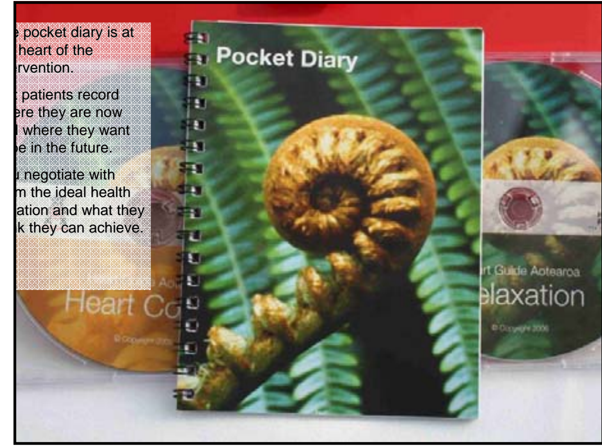


Tick the things you want to know more about

	Page	Tick
Angina	3-7	
Heart failure	8-11	
Palpitations and arrhythmias	12-13	
Cardiac arrest	14	
Implanted cardiac defibrillator	15	
Worries, emotions and stress	16-27	
Anxiety	28	
Panic attack and how to stop them	29-30	
Phobias avoiding activities and places	31-32	
Low mood	33-35	
Depression	36-37	
Sleep	38-40	
Family/whānau	41-42	
Sex	43	
Angioplasty	44-45	
Coronary artery bypass graft surgery	46-47	
Smoking	48	
Activity	49-55	
Being overweight	56-58	
Healthy diet	59-61	
Cholesterol	62	
High blood pressure	63	
Diabetes	64-65	
Heart problems in families	66	
Medication	67-78	
Further reading and resources	79-81	

For partners and family





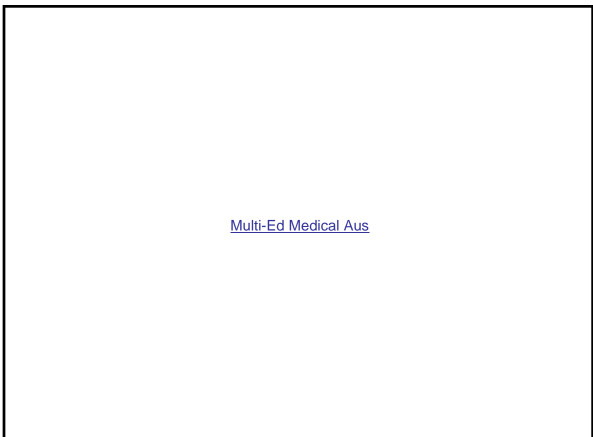
What do I do?

You meet the patient and if possible their partner, family or carer to introduce the programme.

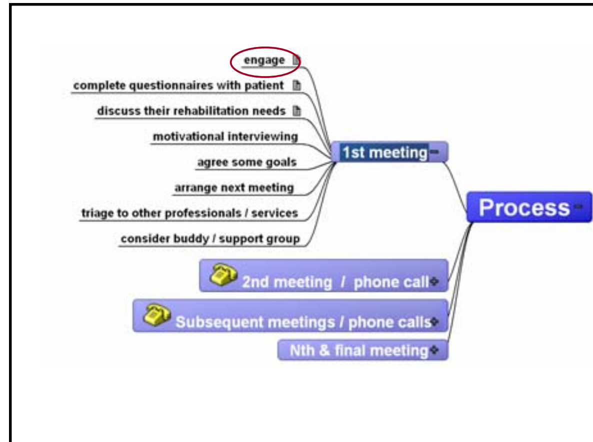
You assess the patients rehabilitation needs using the diary.

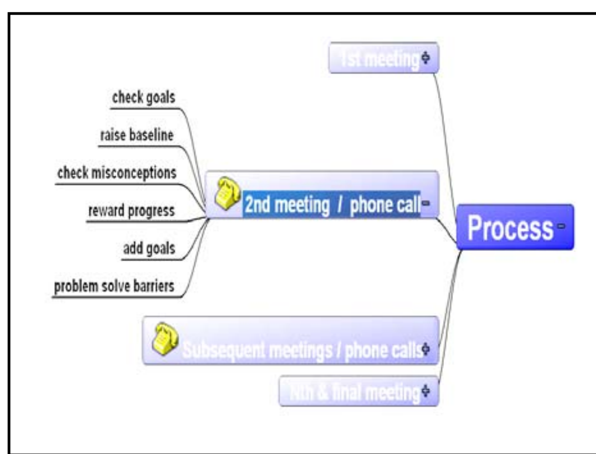
You discuss some goals and negotiate some initial ‘targets’ that the patient will practice every day for the next week.

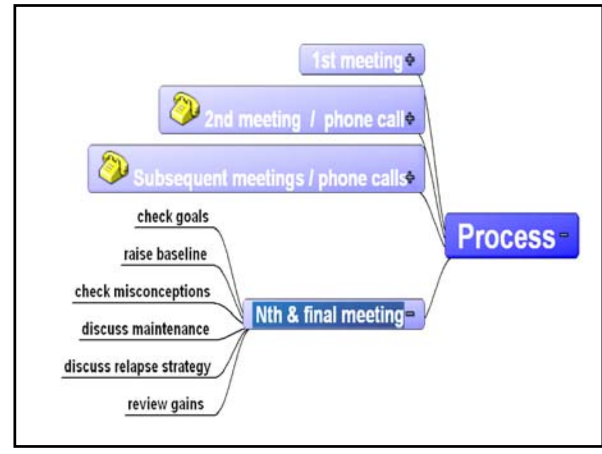
You have several further meetings when you reward the patient for progress and discuss setting a new target.



Multi-Ed Medical Aus







What does the patient do?

They read some of the pages you've discussed

Every day they practice their goals and tick them off in the Diary.

All patients carry out a daily walking goal and practice relaxation and breathing exercises.

For the first few weeks they jot down a few notes about what they are doing each day in the Pocket Diary. This allows you to review if they are resting too much or, more rarely, doing too much.

The Theory

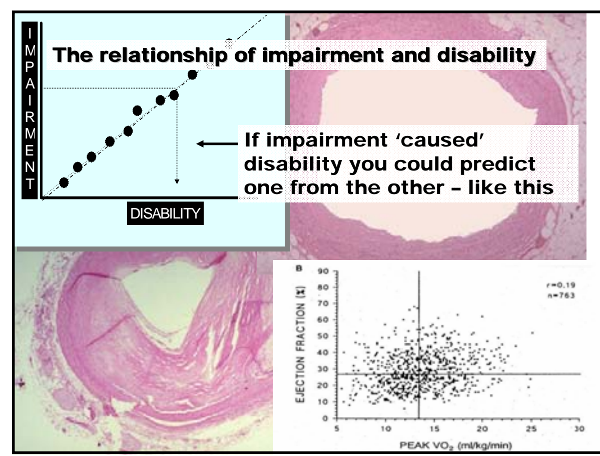
Impairment, Disability, Handicap

impairment = the lesion, the extent of the damage or disease, e.g. the size of the infarct, the extent of the blockage of the arteries, the ejection fraction, etc.

disability = the difference from age adjusted normal, Vo2 Max at exercise testing, report of angina, activities of daily living, pain, sexual problems, mobility, depression, anxiety, etc.

handicap = the additional imposition of society, eg. driving licence restrictions, health insurance, prejudice of employers, access to sports centres, etc.

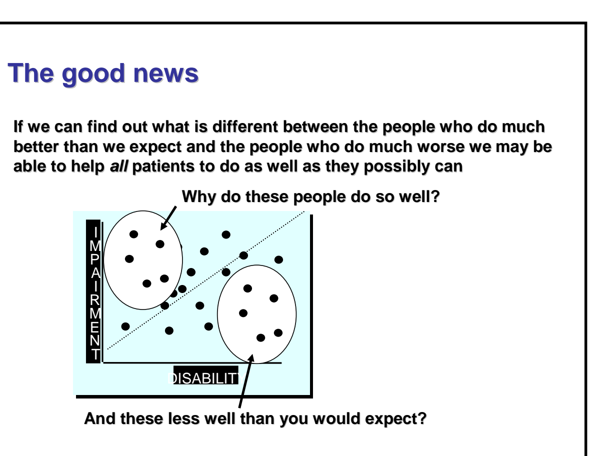
International classification of impairments, disabilities, and handicaps: a manual of classification relating to the consequences of disease. Geneva: World Health Organization



Impairment and disability are not related

The good news

If we can find out what is different between the people who do much better than we expect and the people who do much worse we may be able to help *all* patients to do as well as they possibly can



The things that predict how well a patient will do

ANSWERS	PSYCHOLOGICAL JARGON
Very determined	**HIGHLY MOTIVATED**
Brave, not afraid of anything	**LOW ANXIETY**
Optimistic	**OPTIMISM, NOT DEPRESSED**
Huge belief in himself	**HIGH SELF EFFICACY**
Understanding	**HEALTH BELIEFS**
A 'good coper'	**COPING ACTIONS**
Not modifiable	
Well educated	**YEARS OF EDUCATION**
Intelligent	**INTELLIGENCE**
Well off	**SOCIAL CLASS**
Help from his friends	**SOCIAL SUPPORT**

A cognitive-behavioural understanding of disability

impairment on its own cannot explain

- disability
- the extent of the symptoms reported
- the success or failure of medical treatment or surgery
- the number of acute medical events and readmissions
- medical costs

to predict all of the above you also need to include

- **anxiety & depression** – both prevent good coping and recovery
- **health beliefs** (what caused the illness, what is likely to happen, etc)
- **patients' own attempts to cope** – some ways are unhelpful
- **confidence** in own ability to cope with or 'beat it' - self efficacy
- patients feeling of control over the illness

6 targets of cognitive-behavioural rehabilitation

Beliefs - misconceptions, frightening and wrong knowledge about the illness

Mistaken coping actions - over activity-rest trap, symptom scanning, fear avoidance

Motivation - ambivalence about making change, unsure of benefits

Confidence (self-efficacy) – low in confidence to manage the illness or behaviour change

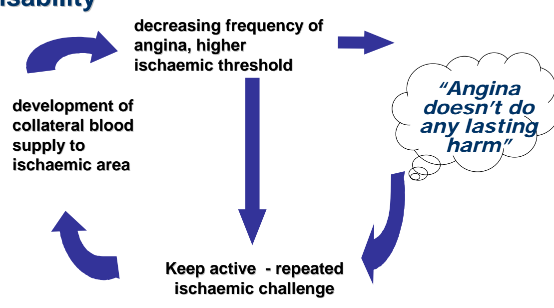
Control – feeling of loss of control over the illness and personal life.

Anxiety & Depression – fear and hopelessness

Examples of Cardiac Misconceptions

Tick to show which are right and which are wrong	*Right*	*Wrong*
It's a good idea to check to see how you feel before doing something		
People who have heart problems should never get excited or upset		
People develop heart disease because of worry in their life		
People who have a heart problem should always avoid stress		
Rest is the best medicine for heart problems		
People with heart problems should live life to the full		
Any sort of excitement could be bad if you have heart problems		
It is dangerous for people who have heart problems to argue		
People with heart disease should take life easy		
One of the main causes of heart disease is stress		

How changing a misconception leads to less disability



Result = stronger fitter, less angina, feel got control of the illness, feel illness getting better,less anxious, more fun, less misery!

Spotting cardiac misconceptions

Ask the patient what they think *caused* their heart problem and what they thing they should *do about it.*

Listen for any misconceptions behind the patients words.

Observe the patients behaviour and that of their family.

Use the Daily Diary to spot fear avoidance (avoiding activity, work, going out etc.) this is usually driven by a misconception.

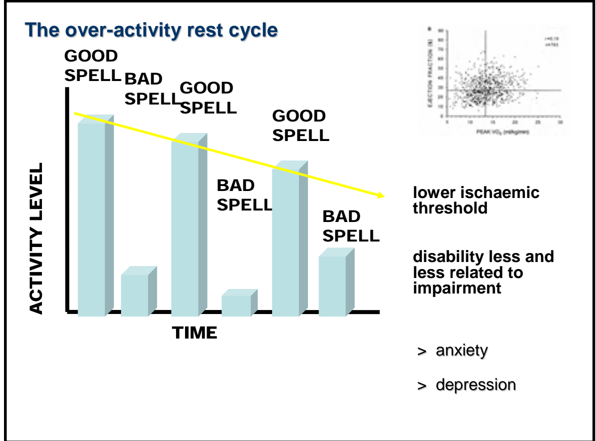
Use the Guide encourage the patients and those around them to try the quizzes, discuss their answers.

Mistaken coping actions

over activity-rest trap

symptom scanning

fear avoidance



over activity-rest trap leads to

- a loss of physical fitness
- greater symptom load
- more tiredness and lethargy
- less control over life
- a feeling that their health problem has taken over their life
- a belief that their illness is getting rapidly worse
- become more anxious

Disability getting disconnected from impairment

Symptom scanning

Patients who ***'check how I feel before deciding what to do'*** become more disabled than patients who plan in advance and carry out that plan even if they wake up feeling a bit 'off', usually within a few hours they feel OK again.

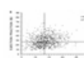
The patient who has stayed in bed, or got up but sat around doing nothing, often feels poorly all day.

An unhelpful remark healthcare staff and well wishers often make to patients is 'listen to your body'

patients often take this to mean don't do anything if you feel a bit unwilling, low in energy, or just 'not quite right'.

This automatically leads to being in the over-activity rest trap.

The solution is goal setting which is described later but the motto of goal setting is 'do what you planned to do, not what you feel like'.



Fear avoidance

Another common but unhelpful coping action is to avoid anything that the patient thinks might cause further damage.

In the case of heart problems this often includes

Activity – people often feel that they have caused their heart problem by working too hard or too much. The obvious solution is to avoid work or any moderate activity. If people have to return to work they often report 'clock watching' or doing as little as possible.

Stress or worry – also often believed to be a cause of the patients heart problem, if the patient believes this, quite reasonably they will avoid anything that might surprisingly they will often avoid all three leading to a fearful and restricted life.

Excitement – things like, fairground rides, rough and tumble with children, sex.

It is important to try and get patients to resume all of the activities they are afraid of using small steps at first (goal setting).

Self-efficacy

Self-efficacy is how much confidence you have in your ability to succeed in achieving a goal.

Years of research have shown that if the patient perceives their chance of success as low, that is they have *low* self-efficacy for a task they are less likely to try the goal or to persevere with it.

The opposite is also true, the higher a patient's self-efficacy is the more likely they are to try and to succeed.

Self efficacy varies widely from task to task – you may feel very high in self-efficacy for shopping but low for working out how much interest you will pay in the next month for the resulting loan on your credit card!

It is important that we work to increase a patients self-efficacy and avoid reducing it.

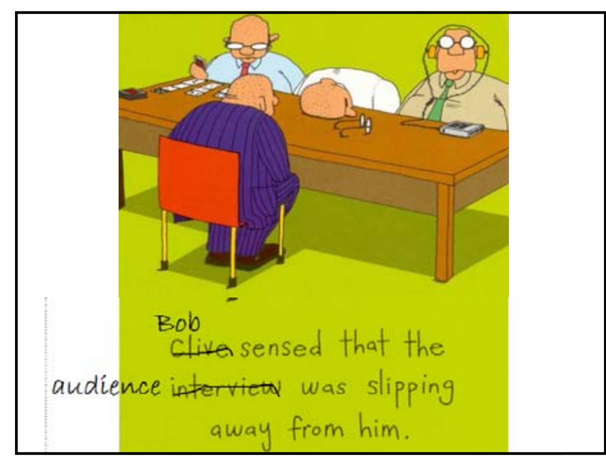
Control

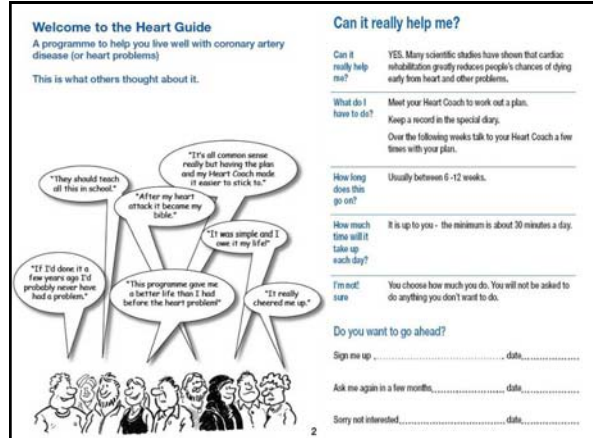
Even where the disease is advanced patients can get control of the symptoms and reduce them to a minimum through good self-management.

Feeling 'in control' has a major impact on our well being.

It is very important to emphasise to patients that they can 'fight back' to get control over their illness.

An increased feeling of control will help to reduce anxiety and depression.





Welcome to the Heart Guide

A programme to help you live well with coronary artery disease (or heart problems)

This is what others thought about it.

"They should teach all this in school."

"It's all common sense really but having the plan and my Heart Coach made it easier to stick to."

"After my heart attack it became my bible."

"It was simple and I owe it my life!"

"If I'd done it a few years ago I'd probably never have had a problem."

"This programme gave me a better life than I had before the heart problem!"

"It really cheered me up."

2

Can it really help me?

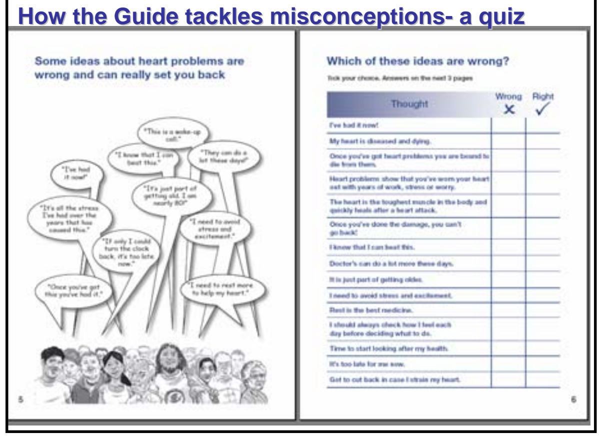
Can it really help me?	YES. Many scientific studies have shown that cardiac rehabilitation greatly reduces people's chances of dying early from heart and other problems.
What do I have to do?	Meet your Heart Coach to work out a plan. Keep a record in the special diary. Over the following weeks talk to your Heart Coach a few times with your plan.
How long does this go on?	Usually between 6 -12 weeks.
How much time will it take up each day?	It is up to you - the minimum is about 30 minutes a day.
I'm not sure	You choose how much you do. You will not be asked to do anything you don't want to do.

Do you want to go ahead?

Sign me up .... date....................

Ask me again in a few months.......................... date....................

Sorry not interested.................................... date....................



How the Guide tackles misconceptions- a quiz

Some ideas about heart problems are wrong and can really set you back

"This is a wake-up call."

"I know that I can beat this."

"They can do a lot these days!"

"I've had it now!"

"It's just part of getting old. I am nearly 80!"

"It's all the stress I've had over the years that has caused this."

"I need to avoid stress and excitement."

"If only I could turn the clock back, it's too late now."

"Once you've got this you've had it."

"I need to rest more to help my heart."

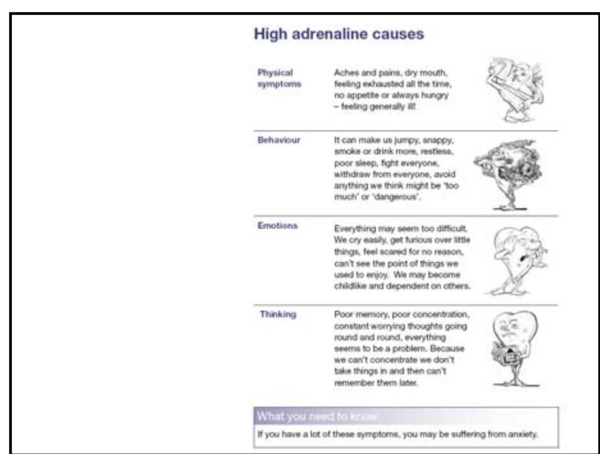
5

Which of these ideas are wrong?

Tick your choice. Answers on the next 3 pages

Thought	Wrong ✕	Right ✓
I've had it now!		
My heart is diseased and dying.		
Once you've got heart problems you are bound to die from them.		
Heart problems show that you've worn your heart out with years of work, stress or worry.		
The heart is the toughest muscle in the body and quickly heals after a heart attack.		
Once you've done the damage, you can't go back!		
I know that I can beat this.		
Doctor's can do a lot more these days.		
It is just part of getting older.		
I need to avoid stress and excitement.		
Rest is the best medicine.		
I should always check how I feel each day before deciding what to do.		
Time to start looking after my health.		
It's too late for me now.		
Got to cut back in case I strain my heart.		

6

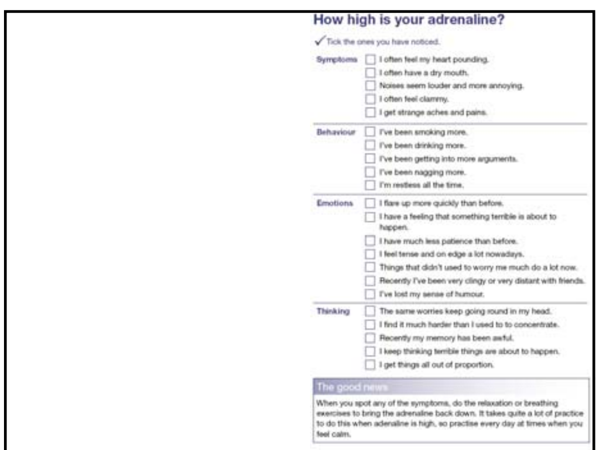


High adrenaline causes

Physical symptoms	Aches and pains, dry mouth, feeling exhausted all the time, no appetite or always hungry – feeling generally ill!
Behaviour	It can make us jumpy, snappy, smoke or drink more, restless, poor sleep, fight everyone, withdraw from everyone, avoid anything we think might be 'too much' or 'dangerous'.
Emotions	Everything may seem too difficult. We cry easily, get furious over little things, feel scared for no reason, can't see the point of things we used to enjoy. We may become childlike and dependent on others.
Thinking	Poor memory, poor concentration, constant worrying thoughts going round and round, everything seems to be a problem. Because we can't concentrate we don't take things in and then can't remember them later.

What you need to know

If you have a lot of these symptoms, you may be suffering from anxiety.



How high is your adrenaline?

✓ Tick the ones you have noticed.

Symptoms
- ☐ I often feel my heart pounding.
- ☐ I often have a dry mouth.
- ☐ Noises seem louder and more annoying.
- ☐ I often feel clammy.
- ☐ I get strange aches and pains.

Behaviour
- ☐ I've been smoking more.
- ☐ I've been drinking more.
- ☐ I've been getting into more arguments.
- ☐ I've been nagging more.
- ☐ I'm restless all the time.

Emotions
- ☐ I flare up more quickly than before.
- ☐ I have a feeling that something terrible is about to happen.
- ☐ I have much less patience than before.
- ☐ I feel tense and on edge a lot nowadays.
- ☐ Things that didn't used to worry me much do a lot now.
- ☐ Recently I've been very clingy or very distant with friends.
- ☐ I've lost my sense of humour.

Thinking
- ☐ The same worries keep going round in my head.
- ☐ I find it much harder than I used to to concentrate.
- ☐ Recently my memory has been awful.
- ☐ I keep thinking terrible things are about to happen.
- ☐ I get things all out of proportion.

The good news

When you spot any of the symptoms, do the relaxation or breathing exercises to bring the adrenaline back down. It takes quite a lot of practice to do this when adenaline is high, so practise every day at times when you feel calm.

What is anxiety?

Anxiety is a medical term for when worry and stress begin to have a serious effect on our lives. Doctors describe three main ways that anxiety can affect you; anxiety state, phobia and panic attack.

An anxiety state is when the symptoms of high adrenaline are with you all of the time.

Life becomes miserable. You may feel tearful or agitated almost all of the time.

You may have a feeling of dread that something bad is about to happen.

Anxiety can cause phobias where you want to avoid normal situations and activities.

Anxiety may cause panic attacks where you think you are about to die.

You may feel that you are going mad. You are not - it is just the effect of having a high adrenaline level.

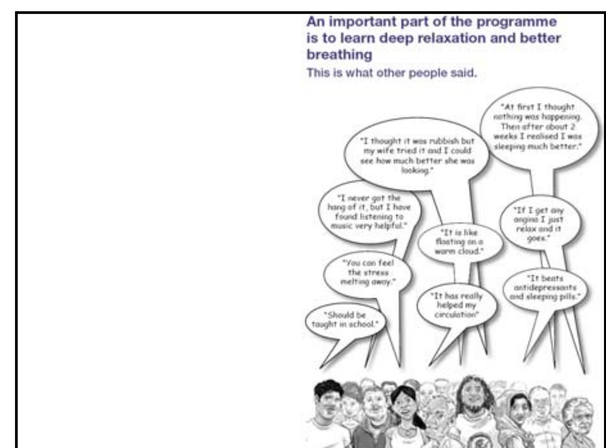
If you feel like this, discuss it with your Heart Coach, doctor or cardiac rehabilitation nurse.

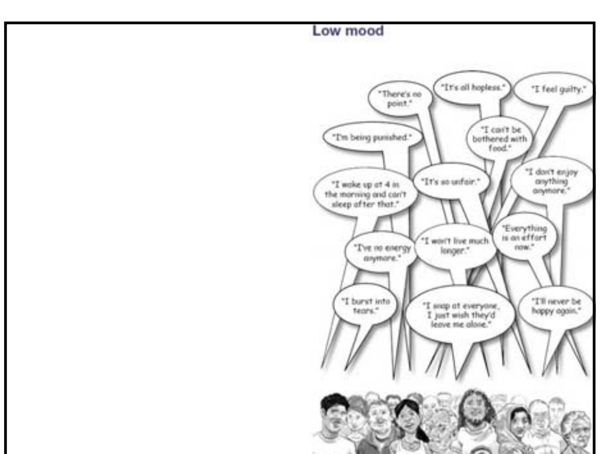
He or she will not look down on you.

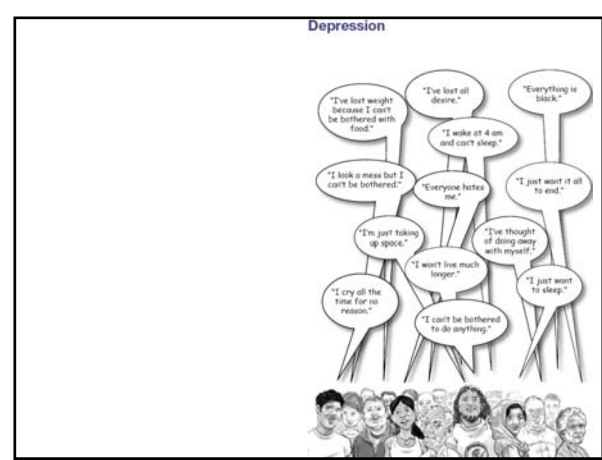
They know that heart patients often feel like this.

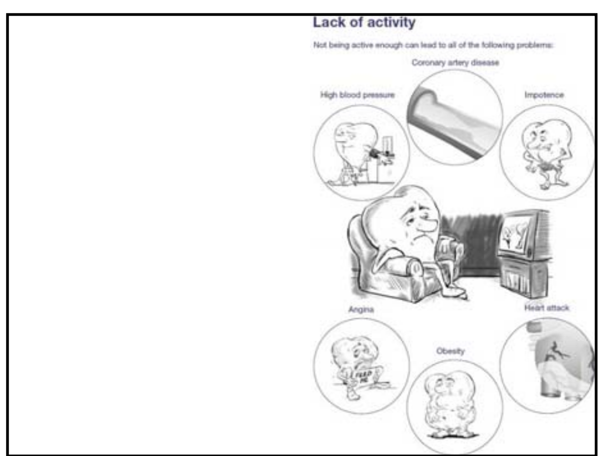
It is not a sign of weakness.

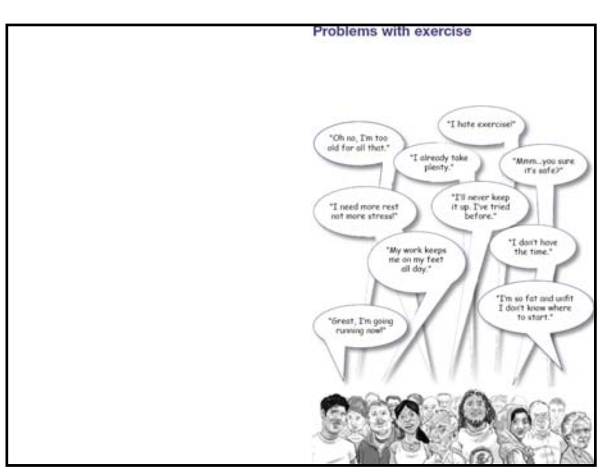
If you find it hard to talk to someone you know, you can phone the mental health foundation on 09 300 7038 or Lifeline for a confidential discussion.











The answers

Question	Answer
I hate exercise!	Most of us do. But you don't have to jump about in a leotard. Anything that gets your heart beating a bit faster will do. Walk to the shop every day for the paper or walk to pick up the grandchildren from school.
I already get plenty of exercise!	Does it make you slightly breathless and sweaty? Do you do at least 30 mins a day at that level? If not, then you need to do a bit more. Can you step up what you do now up so that you do get slightly breathless when you do it?
I'm too old for all that.	Older people get just as much benefit as younger ones. If you can't get out, what about doing some simple chair exercises every day to keep your flexibility?
Mmm.. you sure it's safe?	YES, as long as you use the goal setting method in the Guide. It is definitely NOT safe to be inactive.
I'll never keep it up; I know, I've tried before.	Unless the activity you choose is enjoyable you are unlikely to keep it up for the rest of your life. Have several activities so that when you get bored with one, you can spend more time on another. Would you find it easier to keep going if you had a friend to help you or joined a club?
I need more rest, not more stress!	If you are too stressed to take exercise, discuss with your Heart Coach how you could change this.

How much activity is safe?

The "TALK TEST", slightly short of breath but not so out of breath that you can't talk

The talk test is the best way to judge if you are exercising at the right level.

To get fitter you should be slightly breathless when you are exercising.

MODERATE ACTIVITIES? All these examples are safe if you use the talk test.

Examples are:

cycling, swimming, vacuming, washing floors, brisk walking, sports like table tennis, or at a non serious, non competitive level tennis, badminton, slow jogging, painting and decorating, most gardening.

VIGEROUS ACTIVITIES? Before you do these, you should take advice from your doctor and train for them.

Examples are:

most competitive sports played seriously, heavy building or farm work, digging in clay or heavy land, body building, weight lifting, marathons, jogging or running, swimming.

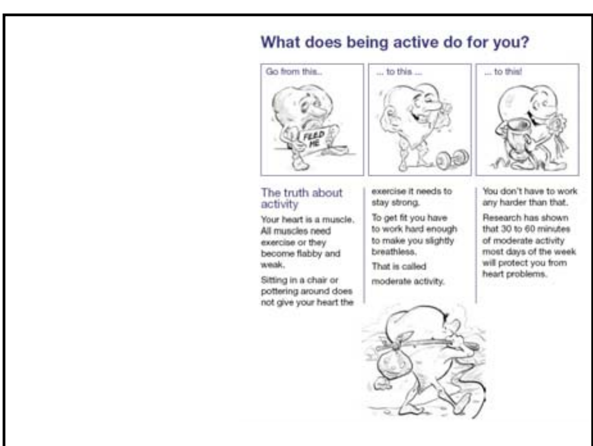
GOOD Ideas

Walking is great! It costs nothing and can provide all the exercise that you need.

Use goal setting to get back to active hobbies or new ones.

Yoga, Tai Chi, aerobics classes, water aerobics, trampolining, cycling, badminton are available in many places.

You should find something to do in the winter or when the weather is bad. Swimming, walking in shopping malls, dancing classes, indoor bowls and aerobics classes can all be done at any time of the year.



What does being active do for you?

The truth about activity

Your heart is a muscle. All muscles need exercise or they become flabby and weak.

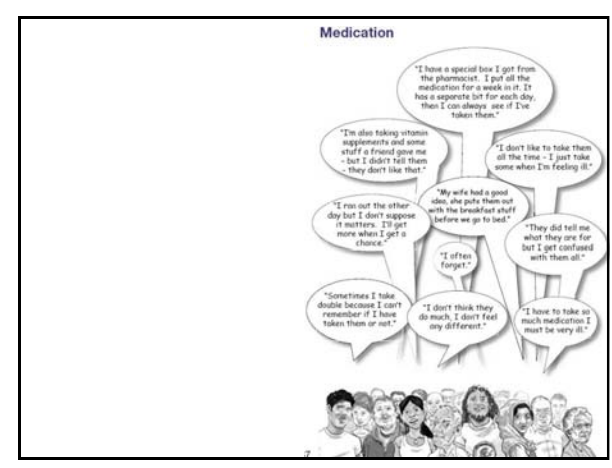
Sitting in a chair or pottering around does not give your heart the exercise it needs to stay strong.

To get fit you have to work hard enough to make you slightly breathless.

That is called moderate activity.

You don't have to work any harder than that.

Research has shown that 30 to 60 minutes of moderate activity most days of the week will protect you from heart problems.



Medication

How can you tell if you have diabetes?

Diabetes is very common in people with coronary artery disease. If you notice any of these symptoms, you should tell your docotor. He may give you a simple blood test to check your blood sugar level.

Very thirsty — Going to the toilet a lot — Feeling very tired — Blurred vision — Itchy genitals

Diabetes often goes unnoticed until damage has been done because the symptoms have not been recognised.

Sometimes they are put down to getting older and are therefore ignored. If you catch it early you can reverse it.

The not so good news

You have to do things other people don't.

Uncontrolled diabetes leads to very serious health problems.

The good news

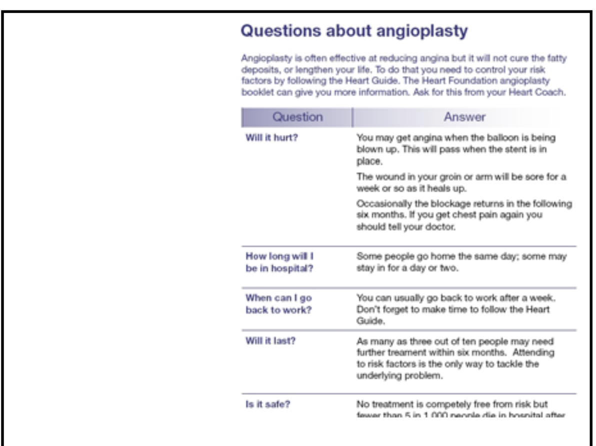
Diabetes can be controlled with diet, medication and insulin injections

With good sugar control you can live a normal life.

Losing some weight, eating a better diet and taking exercise may be enough to control the problem.

Questions about CABG

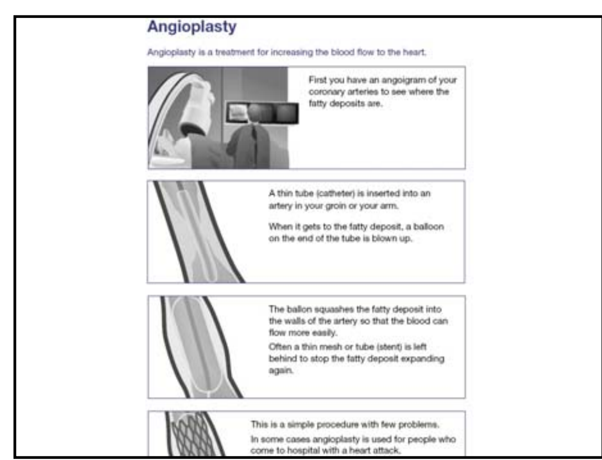
Question	Answer
Will it hurt?	Your wounds will feel a bit sore. This is normal. You will be given pain medication. If you get angina-type chest pain you should tell your doctor immediately. if you get Unrelieved angina type pain for more that 10-15 minutes ring 111 as per you angina action plan. See last page part 1.
How long will I be in hospital?	Probably five to seven days.
When can I go back to work?	If you have a physical job in about three months, for an office-type job you may beable to return in 2 weeks.
Will it last?	For about eight out of ten people, surgery will be a sucess, providing immediate and lasting relief from angina. If you change your risk factors there is every chance that it will not bother you again. For others, surgery will improve their angina.
Is it safe?	No treatment is competely free from risk but fewer than 20 in 1,000 people die in hospital after CABG. Around 2 in 100 may have a stroke. There

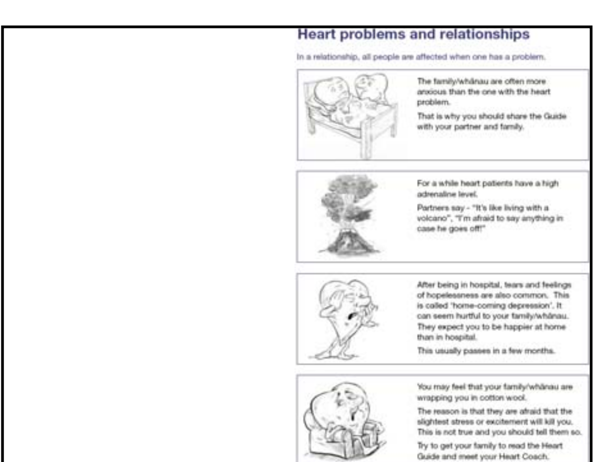


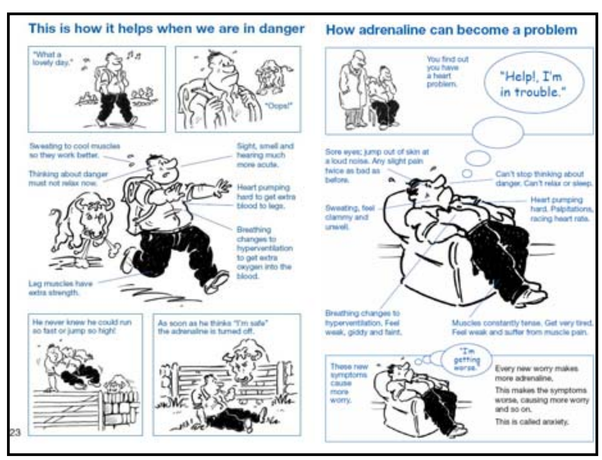
Questions about angioplasty

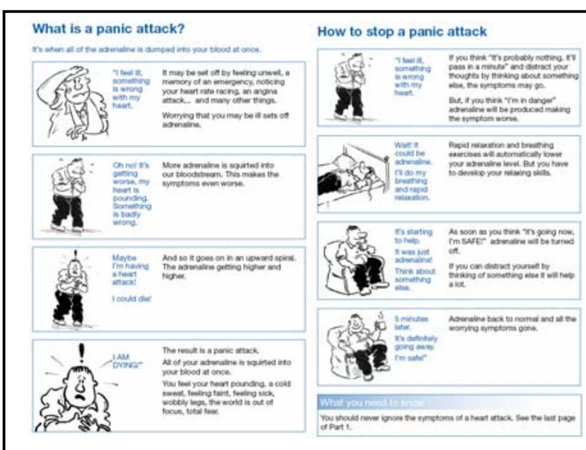
Angioplasty is often effective at reducing angina but it will not cure the fatty deposits, or lengthen your life. To do that you need to control your risk factors by following the Heart Guide. The Heart Foundation angioplasty booklet can give you more information. Ask for this from your Heart Coach.

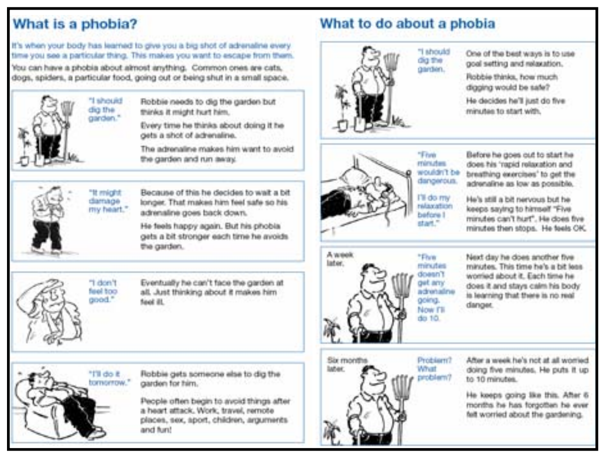
Question	Answer
Will it hurt?	You may get angina when the balloon is being blown up. This will pass when the stent is in place. The wound in your groin or arm will be sore for a week or so as it heals up. Occasionally the blockage returns in the following six months. If you get chest pain again you should tell your doctor.
How long will I be in hospital?	Some people go home the same day; some may stay in for a day or two.
When can I go back to work?	You can usually go back to work after a week. Don't forget to make time to follow the Heart Guide.
Will it last?	As many as three out of ten people may need further treament within six months. Attending to risk factors is the only way to tackle the underlying problem.
Is it safe?	No treatment is competely free from risk but fewer than 5 in 1,000 people die in hospital after











Problems getting to sleep

Worrying about not sleeping well is a major cause of poor sleep!

Gill is feeling tired and goes to bed.

But once she gets there, she feels wide awake!

She starts thinking, "this is no good. I need the rest. I'll be too tired to do anything tomorrow!" She worries that a lack of sleep is bad for her heart.

These worries produce adrenaline. This makes her wide awake.

Adrenaline also makes her look for other problems. Gill starts to think about everything she's got to do tomorrow. This puts her adrenaline level even higher.

She tosses and turns and keeps looking at the clock. As it gets later and later she gets more and more worried. The more worried she gets, the less chance she has of sleeping.

After a few days of this she starts to feel desperate. Even before she goes to bed she is thinking "here we go again, I know I'm not going to get to sleep". A self-fulfilling prophesy.

A treatment for sleep problems

Set a time limit on lying awake. When it is reached get up until you feel drowsy. Repeat until you fall asleep.

Gill sets a time that she thinks is reasonable to wait for sleep to come - half an hour.

At 11 o'clock she goes to bed. As usual, she is suddenly wide awake again. Half an hour later she is still not asleep.

She gets up. She sits in an easy chair reading a book until her eyes get heavy and she feels sleepy again. She goes back to bed. Again she waits for half an hour. Still no sleep! She gets up again. This time she watches a boring TV programme until she feels sleepy.

The first night she had to get up three times! It was very hard dragging herself out of bed each time! She felt quite tired the next day.

But, the following two nights she only had to get up twice before she got to sleep. Now she knew she would only have to wait an hour before she could sleep.

The fourth night she fell asleep before the half hour was up. The fifth night she had to get up twice, but the sixth and seventh night she fell asleep within a few minutes.

Now she sleeps most nights and she doesn't worry because she knows she can always get to sleep within an hour or so.

Behavioural psychology: using rewards

Build a reward into a patients' goal.

Make sure doing a goal is not punishing (unpleasant). If it is reduce it until it is 'just right'.

Verbal rewards are very powerful. You are a major source of reward.

Self-recording, ticking of targets is rewarding for most people.

Use 'Shaping' - reward any move towards a desired behaviour away from a unhelpful one - however slight. As each step becomes established reward only for the next step.

Rewards can be counterproductive

Don't reward failure - by showing more interested in problems than the successes or good days. Patients often, quite unconsciously, start to work for attention by telling us about problems, not success, they've found that this seems to interest us more than talking about feeling better. Carers do the same and people can, quite unintentionally, be conditioned into increased disability.

So, unless it sounds dangerous, *ignore reports of failure, niggling symptoms strange new aches or pains, bad days - and save your attention and rewards (congratulations, smiles, etc) for coping statement*, *optimistic ideas.*

This is called selective attention (or differential reinforcement).

Use shaping - reward *any move at all* from a current unhelpful behaviour towards a more desired behaviour. As each step becomes established – for example, eating one piece of fruit a day, the new threshold for getting a reward becomes eating 2 pieces.

Goal setting

Becoming skilled at goal setting takes time but is very rewarding and is probably *the single most important skill in helping patients change.*

Definitions - Goals, targets

The *goal* is what the person wished to achieve: e.g., get back to work, lose 20 lbs, stop smoking, eat 5 pieces of fruit or vegetables, be able to walk 5 miles, get back to playing golf.

The *target* is the short term goal that you set with the patient on the way to the goal. E.g. walk 500 yards, twice a day every day for a week.

Goal setting

The steps in goal setting are

Establish what patients wish to achieve. This may be health behaviour, such as loosing weight, or it may be to become stronger and have fewer symptoms, or it may be to get back to gardening or DIY.

Set a Target that they agree they could carry out *even on a bad day.*

Get agreement that they will do it every day or every time they've planned.

Meet again several time to reward progress and help the patient set new goals.

Goal setting – S M A R T

Goals can be general- 'lose weight', 'get stronger', 'do my own gardening', 'get back to work', etc. but 'Targets' must be -

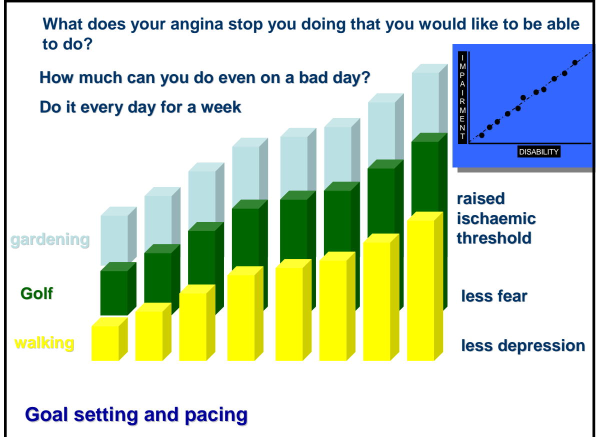
Specific – "I'm going to exercise more" is no good, "I'm going to go for a 30 minute walk everyday in my lunch hour" is excellent.

Measurable –"I want to be able to do my own gardening" is a goal, but not specific enough for a target. "I'm going to do 20 minutes gardening five times a week" is a good target, it is clear if it has been achieved or not.

Achievable – "I'm going to lose 3 stones in the next 2 months" is unrealistic and will be failed which is punishing and lowers self-efficacy. "I'm going to lose 1/2 pound a week" is more realistic and if it is exceeded even more reinforcing.

Rewarding – behaviour that is rewarded increases, behaviour that is not decreases.

Time bound – goals are more likely to be done if a time is agreed in advance.



Goal setting – common problems

- Complex goals. Many goals have to broken down to a series of smaller targets.
- Falling back into the over activity-rest trap by doing *more* than the goal that was set because it was 'too easy' or a 'good day'.
- Raising targets too quickly. impatience can become a problem it can lead to the over activity-rest trap.
- Competing. Some people can't help but compete with themselves or others. Competing can end up with patients back in the over activity-rest trap.
- Being ill. When the patient has been ill and unable to do their activities, they should resume at a level which they judge will be 'just right' i.e. 5 out of 5.
- Going on holiday. Some goals, walking, relaxation should be taken on holiday. If there is a prolonged rest treat as for a period of illness.
- Patients with no goals. It is helpful to have a list of activities to offer patients.

Self-recording

Self recording is intrinsically rewarding and a powerful method for behaviour change in its own right.

This makes Goal setting rewarding.

The Pocket Diary is the main tool for the patients' self-management. The patient should carry it with them at all times and the goals should be ticked off as soon as they are done.

Patients should be issued with at least 3 diaries as most goals will take months to achieve.

Subsequent contacts reviewing success and resetting targets

The most important part of Goal setting is the *reward* and increase in *self efficacy* it brings.

At every meeting you **must** look at *every goal* and *reinforce* every example of success.

If you do not do this goal setting can become a negative force.

Ask, "how do you feel the [target] is going, is it getting easier?" The idea is that the patient learns to increase targets and add new goals as they become more fit and active.

Julies story

Julie worked in a bank and has a family: two boys, a little girl and husband, Steve.

She was always busy, at work or in the house. She didn't have time for anything else.

In the summer the family went to the beach for a holiday. Carrying her little girl along the sand and racing the boys, she suddenly felt a crushing sensation in her chest.

She felt weak and a

protested but secretly she was relieved.

I must be careful, what would my family do without me?, she thought.

The angiogram showed three blockages. Her doctor said, "I think you should have surgery".

She was in hospital for a week and desperate to get home.

But when she got home she was surprised how weak she felt. It was

One night she said to Steve, "tomorrow I'm going to get up early and do a real clean up".

When he got home that night she was lying in bed in tears. "It's hopeless, I only managed to strip the beds and clean one room and I was exhausted."

Next morning she felt worse. She felt more tired than she had when she first came back from hospital. "I must have hurt myself yesterday, I'd

Julie's story

She met with her Heart Coach, Sunny.

Together they went through the things she wanted to do to get better and to stay better.

Risk factors & targets

Risk factor	Now	Ideal	Target	Pages	Notes & ideas
Smoking	0	none			
Blood Pressure	150/90	130/80	yes		
Weight	74kg		yes		
Waist in inches	80cm				
Activity (mins per day)	10	30	yes		
Walking, mins a day	0	30	yes		
Diet					
Fruit	1	5	yes		
Vegetables	1/2	5	yes		
Oily Fish	0				
Red Meat	3				
Cholesterol (if known)	6.3	4.0*	yes		
Relaxation					

Fun, hobbies, social activities that you'd like to get back to - *working in the bank, shopping, housework, dancing*

Julie's weekly record sheet with her targets for the first week

Weekly Record Sheet - Week No: 1

TOO EASY - 0 1 2 3 4 5 6 7 8 9 10 - TOO HARD

Goal	Target	Time of day	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Walking	*20 minutes, down to post office and back*	10.00							
Relaxation	*when the boys have gone to school*	9.30							
Housework	*vacuum 1 room each day*	11.00							
	dust 1 room	11.20							
	20 min's ironing	2.00							
Shopping	*call in at shop on way back, buy 1 or 2 items*	10.10							
Diet	*replace burgers with veggie burgers*	Tea time							
	1 banana, 1 apple, 1 pear a day								
	fish meal 2 times a week								
Activity	*put on record and dance for 5 minutes*	3.00							

A week later

Weekly Record Sheet - Week No: 1

TOO EASY - 0 1 2 3 4 5 6 7 8 9 10 - TOO HARD

Goal	Target	Time of day	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Walking	*20 minutes, down to post office and back*	10.00	6	5	4	4	3	3	3
Relaxation	*when the boys have gone to school*	9.30							
Housework	*vacuum 1 room each day*	11.00	3	3	3	5	4	4	4
	dust 1 room	11.20	2	2	2	4	4	3	
	20 min's ironing	2.00	5	5	5	5	5	5	5
Shopping	*call in at shop on way back, buy 1 or 2 items*	10.10	✓	✓	✓	✓	✓	✓	✓
Diet	*replace burgers with veggie burgers*	Tea time	✓			✓			
	1 banana, 1 apple, 1 pear a day		✓	✓	✓		✓	✓	✓
	fish meal 2 times a week		✓		✓		✓		
Activity	*put on record and dance for 5 minutes*	3.00	7	6	5	5	5	4	4

Get into pairs

One person is the patient

One person is the Rehabist

The patient has a number of cardiac misconceptions and a few goals, things in their life to change

The rehabist has to

1. discover the misconceptions and try to correct them
2. set Goals and targets

The patient can use their own life or role play a patient

Examples of Cardiac Misconceptions

Tick to show which are right and which are wrong	*Right*	*Wrong*
It's a good idea to check to see how you feel before doing something		
People who have heart problems should never get excited or upset		
People develop heart disease because of worry in their life		
People who have a heart problem should always avoid stress		
Rest is the best medicine for heart problems		
People with heart problems should live life to the full		
Any sort of excitement could be bad if you have heart problems		
It is dangerous for people who have heart problems to argue		
People with heart disease should take life easy		
One of the main causes of heart disease is stress		

THE END