



ACHIEVING BEHAVIOURAL CHANGE USING THE BACK-TRACK™ SYSTEM

Using the BACK-TRACK system re-enforces behavioural health and safety principles and has been proven to bring about behavioural change with respect to the established back injury risk factor – stooping.

Using BACK-TRACK will identify those operators that stoop more than their peers. They will be monitored by the BACK-TRACK devices and supervisors and managers may review the online reports to identify those at greatest risk.

A Management Summary Report quickly identifies those who stoop at the highest rate per hour and ranks them from highest to lowest. An organisation may then provide the information to those at greatest risk and conduct a feedback session. This provides an opportunity for the employee to review their lifting and manual handling technique and highlight issues with respect to the task. This will allow the operators to modify their technique or for the task to be modified. The cycle is then repeated through monitoring, review, feedback and modify.

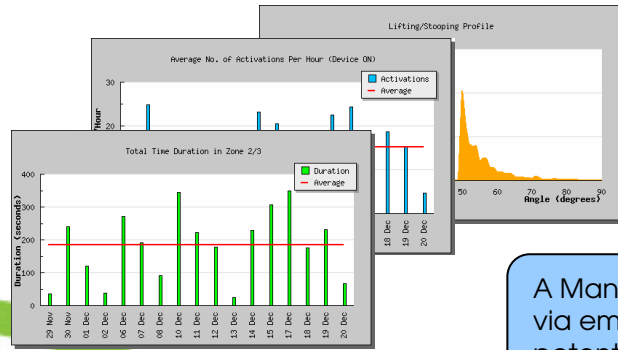
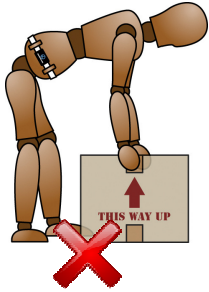
As only those operators with the highest stooping rates are highlighted, those that have modified their behaviour or task, may not be highlighted. However, a new group will become those with the highest stooping rate and they will then be subject to the cycle.

Ultimately, an overall reduction occurs across the organisation as operators are highlighted, their technique or task is optimised and the overall unnecessary stooping is driven out of the process.

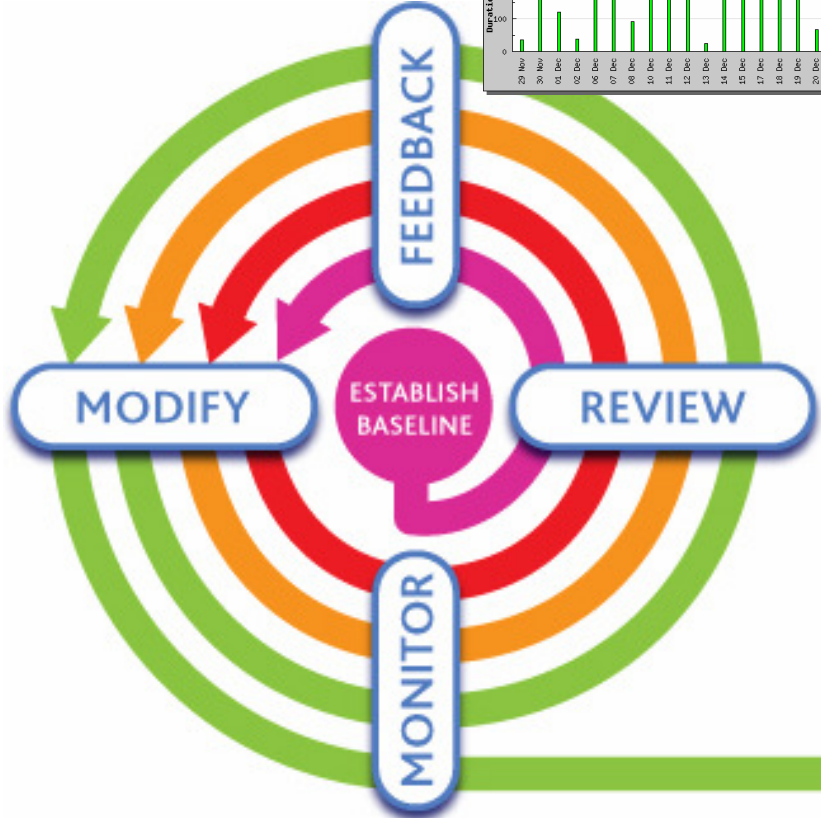
(Do not neglect those that are not highlighted – BACK-TRACK identifies excessive levels of stooping – there are other back injury risk factors that must be monitored and managed).

The BACK-TRACK Cycle of Continuous Improvement

Detailed data for each individual is available. Those identified as being in the top 5th and 10th percentile, are subject to a *feedback* session.



A Management Summary Report available online or via email, highlights those identified as being at potentially highest risk due to their frequency of



Initially the wearer is reminded of their recommended lifting techniques however other elements of the task may require review.

Management Summary for ALL for November 2007 

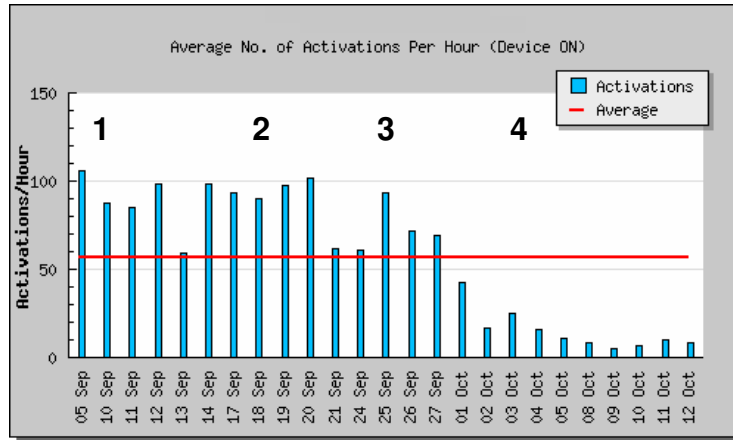
Rank	Name	Current Period - November 2007						Previous Period October 2007		Change in No Acts/Hour
		Average Acts/Hour	Total Activations	Usage (hours)	Z2 Threshold	Z3 Threshold	Vibration Mode	Average Acts/Hour	Usage (hours)	
1	Andrew	3.15	254	80.57	30	50	ON	3.53	96.87	↓
2	Michael	2.3	325	141.48	30	50	ON	2.43	153.39	↓
3	Mark	1.85	293	158.45	30	50	ON	2.32	116.67	↓
4	Peter	1.73	215	124.56	30	50	ON	1.77	83.8	↓
5	Martin	0.97	169	173.36	30	50	ON	1.36	165.42	↓
6	Anthony	0.83	105	126.44	30	50	ON	2.41	120.08	↓
7	Cameron	0.6	105	174.77	30	50	ON	0.59	127.97	↑
8	Martin	0.43	37	85.77	30	50	ON	0.7	79.88	↓
9	Ian	0.4	53	133.51	30	50	ON	0.82	176.3	↓
10	Dean	0.36	55	154.69	30	50	ON	0.89	101.18	↓

BACK-TRACK is a small device, worn on a belt, identifying stooping and periods of extended leaning. These events are recorded and the collected data is uploaded using the internet.



DESIRED OUTCOME = BEHAVIOURAL CHANGE

Through individual improvement, it is possible to achieve an overall change for the organisation.



This graph shows the change that has occurred for an individual using the BACK-TRACK system and the steps outlined above.

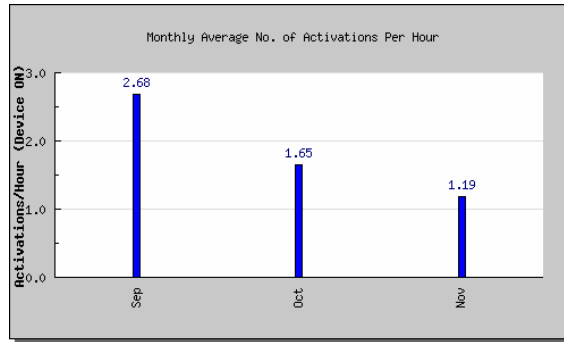
This individual works in a manufacturing environment, unloading boxes from a conveyerised production line and placing them on a pallet.

1. This is the ESTABLISH BASELINE stage. The device is detecting when the wearer is stooping, yet it is not providing a feedback alert when it detects a stoop passed a threshold angle.
2. This is the MONITOR stage. The feedback alert has been activated and the device vibrates to alert the User when it detects it has passed a threshold angle. The device stores this event, including angle and duration of the event.
3. The REVIEW stage is a management process. This involves reviewing the recorded data from all of the devices using the [Management Summary Report](#). This report quickly identifies those who stoop at the highest rate per hour and ranks them from highest to lowest allowing management to focus on those at greatest apparent risk.
4. Following the identification of those at greatest risk, a FEEDBACK session with them allows concerns to be discussed and positive behaviour re-enforced. Manual handling training and lifting techniques may be reviewed along with issues that may be raised by the individual concerning the design of the task.

It will then be possible for the individual to MODIFY their technique or the task.

The MONITOR process continues and those operators with the highest stooping rates are highlighted, those that have modified their behaviour or task, may not be highlighted. A new group will become those with the highest stooping rate and they will then be subject to the cycle.

Ultimately, an overall reduction occurs across the organisation as operators are highlighted, their technique or task is optimised and unnecessary stooping is driven out of the process.



This graph shows an organisation that has adopted the BACK-TRACK system and is in the process of driving unnecessary stooping out of the process. This shows the decrease in the level of stooping across all users within the organisation.

These improvements have been achieved by a large electrical retailer.

In conclusion, by following the Monitor, Review, Feedback, Modify cycle, effective change can be achieved. The BACK-TRACK System makes this process simple and significant improvements can occur relatively quickly.