# MRPro

**M**USCULOSKELETAL **R**ISK **PRO**FILING

# EVIDENCE & OPPORTUNITY FOR CHANGE

## SUMMARY OF RECOMMENDATIONS

HEALTHIER HIGHWAYS

STAY WISE | REDUCE RISK | PROTECT HEALTH

national highways working in partnership with

Steve Perkins Associates

Balfour Beatty

BREEDON

COSTAIN

Connect Plus

telent

core highways

Carnell

TMCA

HIGHWAY CARE

Premier

ARCADIS

# MRPro MUSCULOSKELETAL RISK PROFILING

**MRPro is the first national research study into the scope, prevalence and severity of the musculoskeletal risks faced every day by thousands of highways workers in the course of their jobs. It covers on-road supply chain activity across the whole Strategic Road Network (SRN).**

The statistics for musculoskeletal (MSk) ill-health in construction are shocking; the highways sector accounts for a significant share of this and maintenance and operations activities add further risk.

The emphasis of RIS3 is on making the most of current infrastructure through a greater focus on the renewal and maintenance of existing assets. Such works will inevitably have a greater component of musculoskeletal risk due to issues around accessibility and maintainability.

This evidence-based research enables National Highways and the supply chain to target risk reduction efforts where they will make the biggest difference for people, projects and organisations. This brochure summarises the MRPro recommendations.

**Download full report**

Highways Safety Hub

steveperkinsassociates.com

We are grateful to the hundreds of individuals and companies across the SRN supply chain who have contributed to this research.

We have the evidence and the insights. It's time to seize the opportunity for change.

Steve Perkins & Wendy Jones

**53%**
of UK work-related construction ill-health is musculoskeletal[1]

**41,000**
workers suffering from work-related MSk ill-health[1]

**£650M**
cost to construction employers per year[2]

**1.8M**
working days lost p.a. due to construction work-related ill-health[1]

**50,000**
workers leave after age 50 but before retirement age[3]

**£10,000**
employer cost for one 7+day absence for a work-related MSk disorder[4]

**50%**
of early leavers are likely to finish due to poor health or high physical demands[3]

**1**
is the number of musculoskeletal systems a person has

**100**
highways companies contributed to the MRPro project[5]

**23**
focus groups conducted[5]

**135**
highways industry delegates attended our focus groups[5]

**285**
people responded to our online surveys[5]

**100**
high MSk-risk tasks identified[5]

**45**
highest-risk tasks identified using survey results[5]

**41**
MAC/ART/RAPP assessments conducted[5]

**1000s**
of emails sent and received to deliver these results!

[1] HSE, Construction statistics in Great Britain, 2025

[2] ICE, Costs of occupational ill-health in construction, 2018

[3] CITB, Fuller working lives in construction, 2018

[4] HSE, Appraisal values or 'unit costs' www.hse.gov.uk/statistics/economics/eauappraisal.htm

[5] SPA, Musculoskeletal risk profiling in highways – Evidence and opportunity for change, 2026

# ALL PARTIES & INDUSTRY

- Consider the health of construction and maintenance workers at the earliest stages of every project or proposal.
- Use a hierarchy of control approach to managing risk.
- Find ways to improve sharing of good practice within and between disciplines where this does not currently happen.
- Identify and investigate hazardous tasks which have not been covered in this research.
- Establish an industry wide (or cross-industry) forum to develop new solutions for the highest risk tasks such as cone laying, raising gulleys, opening chamber covers, filling potholes, road marking by hand, and tying rebar. This is likely to require collaboration with manufacturers as well as engagement with the workforce. Innovative sources of funding might be needed to enable this.

*"I can no longer physically pick up a jug and rotate it through its full range of motion when there's weight in it, because my wrists are knackered... I have sciatica... my right shoulder, that's completely knackered."*

*"Confined space entry: It's a very physically demanding job, potentially crawling and climbing through structures."*

*"I'm 48 this month and Dave's a little bit younger than me and both of our backs are shot. And I guarantee it's down to [work in TM]."*

# NATIONAL HIGHWAYS & OTHER CLIENTS

- Embed processes to support 'health by design.'
- Embed Early Contractor Involvement as standard.
- Update DMRB procedures so that they encourage innovation where appropriate; make it more straightforward (cheaper and quicker) to get suitable departures approved.
- Set expectations and minimum standards for supply chain good practice in managing MSk risk.
- Ensure contracts are costed to support good ways of working.
- Review design processes, DMRB standards, and contracting models to encourage development and adoption of new solutions.

*"I'd use a Vac-Ex on every contract, but they [the client] don't want to pay for it."*

*"There were 30 projects... 3 departures... those departures cost £165,000... without actually paying for anything else to be different, just in paperwork."*

*"They [designers] could get in contact with us [contractors] a lot earlier... so we can help them design it, with products in the market."*

# DESIGNERS

- Support designers to understand health risks and how their work can make a difference.
- Address barriers to innovation in design.
- When upgrading/replacing structures work with the client to reduce future health risk.

*"We've had cages designed for...a bridge base... They were designed in such a way where the only way that you could fix the top... was to lie on your back effectively within the cage and be fixing above you."*

*"Sometimes you have to lay down because it's the only way of getting into a gap that's 500mm."*

*"Some of the sign bases that we do. Crikey, you could build a skyscraper on it."*

# CONTRACTORS

- Use mechanisation wherever possible.
- Make 'good practice' the norm: buy best available tools, deter unnecessary risks or short cuts.
- Use the MAC tools to improve understanding of task risk, how it varies between individuals and situations and how to reduce it.
- Provide suitable training and education: targeted and task specific.
- Encourage reporting of work-related musculoskeletal harm.

*"It's 15 minutes to set all this up [gulley lifting aid] or two minutes to grab the J bar out. They're always reverting back to the J bar."*

*"Numerous occasions we've broken hydraulic lifting or chains just to lift up the chamber because they've either seized or the weight of them."*

*"I believe that a lot of issues come from not having the best tools available for the work at hand and not using the tools at hand to the best of their ability."*

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HEALTHIER HIGHWAYS

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*"Don't think it won't creep up on you because it does... it might not be today or tomorrow you feel the pain, but in three years, five years, ten years, you'll feel the pain. And believe me, that soon comes..."*

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