



Sedentary Work Culture, Nutritional Risk And Health Sustainability Among Project-Based Professionals

By

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ABSTRACT

Project-based work in engineering and construction often involves long hours, continuous coordination and heavy screen exposure. While teams closely monitor cost, schedule and quality, the health capacity of the people delivering projects is rarely managed with the same discipline. Prolonged sitting and irregular eating patterns are linked to higher cardiometabolic risk and other non-communicable diseases (NCDs). This article outlines the main risks for project-based professionals and suggests practical, low-disruption strategies using project management logic to support long-term workforce sustainability.

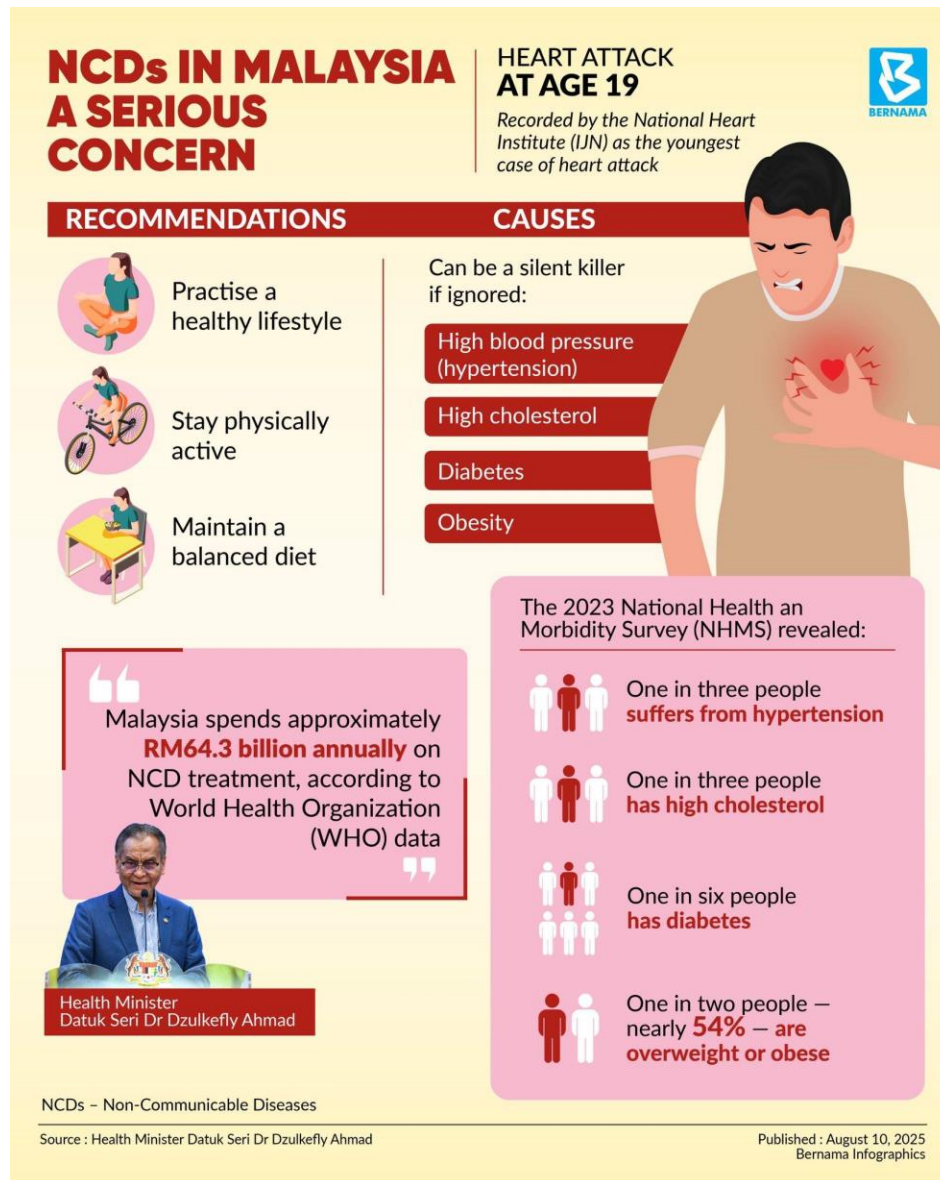
1. Introduction

Compressed timelines, overlapping tasks and constant decision-making are normal in project environments. These pressures encourage prolonged sitting, back-to-back virtual meetings and skipped or delayed meals. Over time, sustained screen work, low movement and inconsistent meal timing may weaken productivity, concentration and long-term health.

2. Sedentary Behaviour as an Occupational Risk

For project managers, engineers and technical professionals, much of the workday is spent on documentation, reporting, virtual coordination and remote monitoring. From a project perspective, prolonged sitting should be viewed as an operational risk. Research consistently links high sedentary time with greater risk of cardiometabolic disease and mortality. Sedentary lifestyles are also associated with metabolic dysfunction and may contribute to non-alcoholic fatty liver disease. These conditions can progress with few early symptoms, much like latent project defects that become visible only after damage has occurred.

- Type 2 diabetes mellitus
- Hypertension
- Dyslipidaemia
- Cardiovascular disease
- Cerebrovascular disease
- Non-alcoholic fatty liver disease



3. Anthropometric Indicators as Early Warning Metrics

Early detection is a central principle of effective risk management. In health assessment, simple anthropometric indicators serve a comparable function.

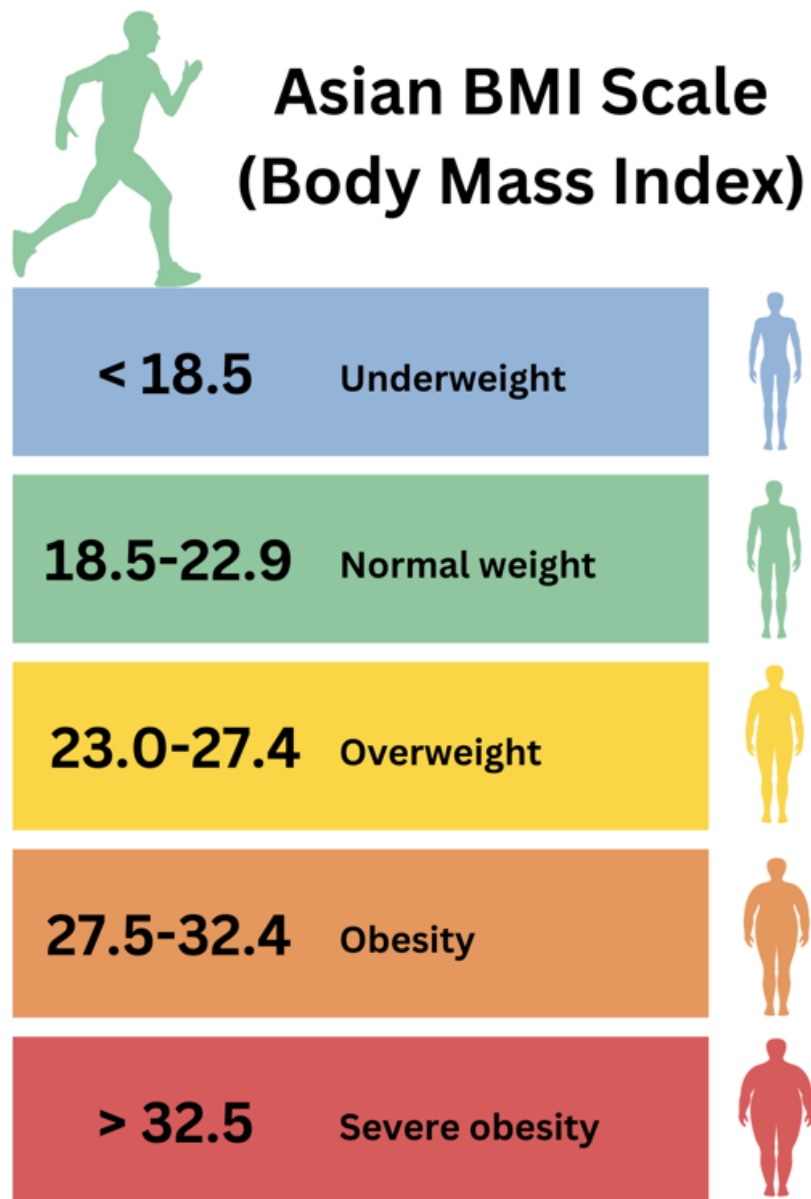
3.1 Waist Circumference

Measurement at the umbilical level following exhalation provides an effective indicator of central adiposity. Commonly applied Asian reference values include:

- Men: < 90 cm
- Women: < 80 cm

Waist circumference is a practical indicator of central adiposity. Common Asian cut-off points for increased risk are 90 cm or more for men and 80 cm or more for women.

3.2 Body Mass Index (BMI)



Adapted from: WHO Asia-Pacific Body Mass Index

Asian populations, risk can begin at lower BMI levels than in Western populations. These measures are not diagnostic, but they are useful for routine monitoring and early intervention.

4. Nutrition as Preventive Maintenance

Sedentary work culture often co-exists with irregular eating patterns, including meal skipping, frequent snacking, sugary drinks and reliance on convenience foods. These behaviours are reinforced by travel, long meetings and urgent deadlines. Over time, they can worsen glucose control and raise the risk of type 2 diabetes.

5. Managing Dietary Risk for Busy Professionals

When workload cannot easily be reduced, small rules can still lower risk. Breaking up sitting time with short movement breaks can improve postprandial glucose responses. Standing, walking briefly between meetings or avoiding long uninterrupted sitting periods are realistic controls in many office and project settings.

MINISTRY OF HEALTH, MALAYSIA

MALYSIAN HEALTHY PLATE

Fish, Poultry, Meat and Legumes

Fruits

Rice, Noodle, Bread, Cereals, Cereal Products and Tubers

Vegetables

#QuarterQuarterHalf

MALYSIAN HEALTHY PLATE

#QuarterQuarterHalf

Key Message

- Consume 3 regular healthy main meals everyday
- Consume 1-2 servings of healthy snacks between meals when necessary
- Consume at least half of your grains from whole grains
- Consume non-fried & santan-free dishes everyday
- Consume home cooked foods more often

MALYSIAN HEALTHY PLATE

#QuarterQuarterHalf

Adopted from: Ministry of Health Malaysia

Food order is another practical strategy. Eating vegetables and protein before rice, noodles or other starches may reduce post-meal glucose and insulin spikes compared with eating carbohydrates first. In eating-out environments, a simple rule such as “fibre and protein first, starch last” offers an easy, low-disruption approach.



6. Conclusion

Projects depend on leading indicators to avoid costly failure. Human health follows the same logic. Persistent sitting, poor meal structure and gradual central fat gain are warning signs of future disruption to workforce performance and sustainability. By treating health habits as manageable project risks, organisations and professionals can protect functional capacity, improve resilience and support healthier project delivery.

References

1. Ballon, A., Neuenschwander, M., & Schlesinger, S. (2019). Breakfast skipping is associated with increased risk of type 2 diabetes among adults. *The Journal of Nutrition*, 149(1), 106–113.
2. Biswas, A., Oh, P. I., Faulkner, G. E., et al. (2015). Sedentary time and its association with risk for disease incidence, mortality, and hospitalization in adults. *Annals of Internal Medicine*, 162(2), 123–132.
3. Bull, F. C., Al-Ansari, S. S., Biddle, S., et al. (2020). World Health Organization 2020 guidelines on physical activity and sedentary behaviour. *British Journal of Sports Medicine*, 54(24), 1451–1462.
4. International Diabetes Federation. (2005). The IDF consensus worldwide definition of the metabolic syndrome.
5. Shukla, A. P., Andono, J., Touhamy, S., et al. (2017). Carbohydrate-last meal pattern lowers postprandial glucose and insulin excursions in type 2 diabetes. *BMJ Open Diabetes Research & Care*, 5(1), e000440.

6. WHO Expert Consultation. (2004). Appropriate body-mass index for Asian populations and its implications for policy and intervention strategies. *The Lancet*, 363(9403), 157–163.
7. Young, D. R., Hivert, M.-F., Alhassan, S., et al. (2016). Sedentary behavior and cardiovascular morbidity and mortality. *Circulation*, 134(13), e262–e279.