

Risk assessment for Teleworkers

Summary

New communication technologies have made possible the rapid development of new types of work organisation relying heavily on the use of computers and communication devices. Telephone call centres, internal or external to a company, are the most obvious example. Teleworking from home or 'e-working' mobile workers are two other aspects of the phenomenon. A major challenge regarding different forms of telework is to reconcile the flexibility of work arrangements and modern ICT tools with the workers' safety and health.

In the framework of this article, telework is defined as 'a form of organising and/or performing work, using information technology, in the context of an employment contract/relationship, where work, which could also be performed at the employers' premises, is carried out away from these premises on a regular basis'.^[1] This article will focus on 'the use of IT to perform office work at home rather than from the ordinary workplace'.^[2]

Traditional work organisation is changing in terms of spatiality and temporality. Work will continue to spill over into private and family life. Reciprocal spill-over complicates risk assessment and creates new occupational safety and health concerns.

Responsibility for health and safety at work rests with the employer. By law occupational risks have to be avoided and when this is not possible they have to be assessed and reduced. This duty also applies to workers working at home. The framework directive 89/391/EEC and all other OSH directives apply to teleworking.

Teleworkers' health and safety creates a specific challenge. Preventing occupational risks for teleworkers means considering work organisation and working conditions at home during the risk assessment phase as they are an integral part of any successful quality programme. Attention to health and safety risks related to material, equipment and the work environment should start at the planning and purchasing stage of such equipment, whether it is bought by the teleworkers themselves or provided by the employer.

Following a brief introduction to teleworking and occupational health and safety issues faced by teleworkers, the article includes sections on 'How to do a Risk Assessment' and 'How to use a Checklist'. A checklist is then presented to help identify the hazards applied to teleworking. An extensive list of 'proposed solutions and examples of preventive measures' is then considered for some of the questions raised in the general checklist. A case



Risk Assessment for Teleworkers

study is then presented, showing the challenges faced by teleworking. Finally, sources of further information are presented at the end of the article.

Introduction to teleworking

Teleworking is a fast-growing industry that has been boosted by the swift development of the new communication technologies. There are at least 4.5 million teleworkers in the EU (this figure dates from 07/2002; other sources say there are as many as 20 million. According to IOSH, there are 3.1 million teleworkers in the UK alone, or 8% of the working population[3]). This number could top 27 million by 2010 [4]. Teleworking is more commonplace in the USA than in the EU, where it is more prevalent in the Nordic countries than in the south of Europe.[5] According to the fourth European Working Condition Survey in 2005,[6] almost 60% of EU workers (EU27) work all or almost all the time at company premises. Around 15% of the respondents work always or almost always outside the home or company premises and twice as many do so at least a quarter of the time. Furthermore, 8% report working at home with a PC at least a quarter of the time. Less than 2% regularly work at home using a PC.

Occupational safety and health problems faced by teleworkers

Even if employees are working at home, the responsibility for carrying out risk assessment of any workplace remains with the employer. However, it is difficult to assess the working environment at home as home-based telework is still a grey area. Furthermore, it is not easy for health and inspection authorities to visit private premises without the consent and at the request of the worker.

The EU Framework Agreement on Telework is tackling this problem. It has been transcribed into national law in the majority of the EU countries and the first evaluation[7] of its implementation has been made. This agreement underlines that teleworkers enjoy the general protection afforded to workers. In order to verify that the applicable health and safety provisions are correctly applied, the employer, workers' representatives and/or relevant authorities have access to the teleworkplace, within the limits of national legislation and collective agreements. If the teleworker is working at home, such access is subject to prior notification and his/her agreement. Finally, the teleworker is entitled to request inspection visits.

Balancing the advantages and disadvantages of teleworking is not an easy task.[8] Various studies and study populations have highlighted different aspects. Among the positives are a better quality of life, greater flexibility for the company and easier access to work for disabled workers. In contrast, home working is often shown to be related to disadvantage for the individual



Risk Assessment for Teleworkers

such as increased stress from feelings of isolation, reduced organisational support, and problems with effective management supervision/control.

A study example from Sweden shows that :

- Teleworkers worked long hours without breaks, and worked late at night and on the weekends at home;
- The workstation was seldom as good ergonomically at home as at the office;
- All the respondents experienced problems with the computer equipment and computer system;
- Introducing telework can enhance work effectiveness; however, it can also result in both an increase in workload and various work-related health risks.

For teleworkers, there is a risk of erosion of working hours and blurred boundaries between work and family life. A potential risk of overwork does exist because home workers have no external references of other colleagues' time patterns.

Identified risks and possible stress factors in call centres such as noise, static work, visual and mental fatigue apply too in this situation. Repetitiveness, monotony, loneliness and lack of collective support are other risks factors for the well-being of teleworkers.

How to do a Risk Assessment

Risk assessment is the process of evaluating risks to workers' safety and health from workplace hazards. A risk assessment is a systematic examination of all aspects of the work undertaken to consider what could cause injury or harm, whether the hazards could be eliminated, and if not what preventive or protective measures are, or should be, in place to control the risks.

For most businesses, especially small and medium-sized enterprises, a straightforward five-step approach (incorporating elements of risk management) such as the one presented below should work well.

Step 1. Identifying hazards and those at risk.

Looking for those things at work that have the potential to cause harm, and identifying workers who may be exposed to the hazards.

Step 2. Evaluating and prioritising risks

Estimating the existing risks in terms of severity and probability of possible harm and prioritising them in order of importance.

Step 3. Deciding on preventive action



Risk Assessment for Teleworkers

Identifying the appropriate measures to eliminate or control the risks.

Step 4. Taking action

Putting in place the preventive and protective measures through a prioritisation plan.

Step 5. Monitoring and reviewing

The assessment should be reviewed at regular intervals to ensure that it remains up to date.

However, it is important to know that there are other methods that work equally well, particularly for more complex risks and circumstances.

For more information: <http://osha.europa.eu/en/topics/riskassessment>

What is (and is not) a checklist and how to use it

- A checklist can help identify hazards and potential prevention measures and, used in the right way, forms part of a risk assessment.
- A checklist is not intended to cover all the risks of every workplace but to help you put the method into practice.
- A checklist is only a first step in carrying out a risk assessment. Further information may be needed to assess more complex risks and in some circumstances you may need an expert's help.
- For a checklist to be effective, you should adapt it to your particular sector or workplace. Some extra items may need to be covered, or some points omitted as irrelevant.
- For practical and analytical reasons, a checklist presents problems/hazards separately, but in workplaces they may be intertwined. Therefore, you have to take into account the interactions between the different problems or risk factors identified. At the same time, a preventive measure put in place to tackle a specific risk can also help to prevent another one; for example, air conditioning put in place to combat high temperatures can also prevent stress, given that high temperatures are a potential stress factor.
- It is equally important to check that any measure aimed at reducing exposure to one risk factor does not increase the risk of exposure to other factors; for example, reducing the amount of time a worker spends reaching above shoulder level may also increase the time spent working in a stooped posture, which may lead to back disorders.
- It is essential that checklists are used as a means of development support, not simply as a 'tick-the-box' formal checklist.



Risk Assessment for Teleworkers

General, non-exhaustive checklist that can be used as a model

With reference to teleworking, this checklist should be considered as a first step as a more activity-oriented checklist may be necessary depending on the activity.

Part A	Does the hazard exist at the workplace?		
1	Workplace environment and equipment		
	Questions	Yes	No
1.1	Is microclimate appropriate (temperature, humidity) according to national regulations?	<input type="checkbox"/>	<input type="checkbox"/>
1.2	Does the room have natural lighting?	<input type="checkbox"/>	<input type="checkbox"/>
1.3	Is lighting (and daylight) at the workplace sufficient to perform tasks efficiently and accurately?	<input type="checkbox"/>	<input type="checkbox"/>
1.4	Does the teleworker have a separate room at his/her disposal so as to isolate himself/herself from others while teleworking?	<input type="checkbox"/>	<input type="checkbox"/>
1.5	Can the teleworker shut the door of his/her office at the end of the working day and keep work information confidential when necessary?	<input type="checkbox"/>	<input type="checkbox"/>
1.6	Does noise distract the teleworker's attention? Could the teleworker suffer from an acoustic shock while using his/her headset during phone calls?	<input type="checkbox"/>	<input type="checkbox"/>
1.7	Is there enough working space? Is storage space available?	<input type="checkbox"/>	<input type="checkbox"/>
1.8	Is the working space properly cleaned and maintained?	<input type="checkbox"/>	<input type="checkbox"/>
1.9	Is the furniture (seats, table) and other basic equipment regularly checked at teleworker's home?	<input type="checkbox"/>	<input type="checkbox"/>
1.10	Is the chair stable? Does it ensure free movement and a comfortable body posture?	<input type="checkbox"/>	<input type="checkbox"/>
1.11	Does the height of teleworker's desk ensure the mobility of the legs?	<input type="checkbox"/>	<input type="checkbox"/>
1.12	Is the space in front of the keyboard and the mouse sufficient for supporting teleworker's wrists?	<input type="checkbox"/>	<input type="checkbox"/>
1.13	Is the electrical wiring safe and in good working order?	<input type="checkbox"/>	<input type="checkbox"/>
1.14	Is all equipment correctly installed and properly wired?	<input type="checkbox"/>	<input type="checkbox"/>
1.15	Are there any damaged plugs or sockets?	<input type="checkbox"/>	<input type="checkbox"/>
1.16	Have dangers of fire been minimised?	<input type="checkbox"/>	<input type="checkbox"/>
1.17	Is there any danger of slips, trips or falls because of electric cables and obstructed walking spaces?	<input type="checkbox"/>	<input type="checkbox"/>



Risk Assessment for Teleworkers

2	Visual Display Units (VDU)		
	Questions	Yes	No
2.1	Is the VDU correctly installed without any glare or reflection inducing visual fatigue?	<input type="checkbox"/>	<input type="checkbox"/>
2.2	Are the images on VDUs free from vibration?	<input type="checkbox"/>	<input type="checkbox"/>
2.3	Does general and local lighting ensure satisfactory light and contrast between the screen and the background of the VDUs?	<input type="checkbox"/>	<input type="checkbox"/>
3	Software and hardware ergonomics		
	Questions	Yes	No
3.1	Are technical and software bugs a problem to the teleworker?	<input type="checkbox"/>	<input type="checkbox"/>
3.2	Does the software meet the requirements of teleworker's task?	<input type="checkbox"/>	<input type="checkbox"/>
3.3	Is support provided to the teleworker in the case of problems with computer software and hardware?	<input type="checkbox"/>	<input type="checkbox"/>
4	Work organisation		
	Questions	Yes	No
4.1	Is the proper implementation of established working procedures checked?	<input type="checkbox"/>	<input type="checkbox"/>
4.2	Are the tasks and responsibilities clearly defined between the teleworker and colleagues in the office?	<input type="checkbox"/>	<input type="checkbox"/>
4.3	Is the agreement about telework transparent to the teleworker?	<input type="checkbox"/>	<input type="checkbox"/>
4.4	Is the work organised in such a way that the teleworker has regular breaks?	<input type="checkbox"/>	<input type="checkbox"/>
4.5	Does teleworker's employee have enough information about any changes and difficulties in his/her work organisation?	<input type="checkbox"/>	<input type="checkbox"/>
4.6	Have arrangements been made in case of illness, for holidays, etc.?	<input type="checkbox"/>	<input type="checkbox"/>
4.7	Are there regular team meetings?	<input type="checkbox"/>	<input type="checkbox"/>
4.8	How is the teleworker informed if there are changes or problems in the company?		
4.9	Are there certain periods of the day when the teleworker is on call? Yes, no, not applicable?		



Risk Assessment for Teleworkers

5	Psychosocial issues		
	Questions	Yes	No
5.1	Does the teleworker manage to separate his/her professional and private life?	<input type="checkbox"/>	<input type="checkbox"/>
5.2	Are the members of teleworker's family happy with his/her working at home?	<input type="checkbox"/>	<input type="checkbox"/>
5.3	Does the teleworker have enough contacts with his/her colleagues?	<input type="checkbox"/>	<input type="checkbox"/>
5.4	Does the teleworker feel isolated?	<input type="checkbox"/>	<input type="checkbox"/>
5.5	Does the teleworker miss regular contact with other people at work?	<input type="checkbox"/>	<input type="checkbox"/>
5.6	Does the teleworker miss the direct feedback on his/her work from his/her manager (or supervisor?) and his/her colleagues?	<input type="checkbox"/>	<input type="checkbox"/>
5.7	Does the teleworker feel his/her colleagues accept his/her telework arrangements?	<input type="checkbox"/>	<input type="checkbox"/>
6	Health and safety management issues		
	Questions	Yes	No
6.1	Has OSH guidance been provided to the teleworker?	<input type="checkbox"/>	<input type="checkbox"/>
6.2	Do the employer, workers' representatives and/or relevant authorities have access to teleworker's workplace, within the limits of national legislation and collective agreements? * Does the teleworker know that such access is subject to prior notification and his/her agreement? * Does the teleworker know he/she is entitled to request inspection visits?	<input type="checkbox"/>	<input type="checkbox"/>
6.3	Are there relevant procedures to monitor the health and safety of the teleworker's home workplace?	<input type="checkbox"/>	<input type="checkbox"/>
6.4	Is it possible for the teleworker to regulate hours worked at home?	<input type="checkbox"/>	<input type="checkbox"/>
6.5	Is there a balance between time spent in the office and working time available at home?	<input type="checkbox"/>	<input type="checkbox"/>
6.6	Has the teleworker noticed symptoms of 'workaholism'; is he/she working too much?	<input type="checkbox"/>	<input type="checkbox"/>



Risk Assessment for Teleworkers

7	Information and training	Yes	No
	Questions		
7.1	Is the teleworker informed about the risks regarding health and safety?		
7.2	Has the teleworker been trained to meet job demands?		

The proposed solutions presented in Part B are examples of preventive measures that can be taken to prevent or reduce risks. The preventive measures correspond to the questions in Part A.

Part B	Examples of preventive measures
Questions	1. Workplace environment and equipment
1.1 – 1.17	Regularly checking all equipment.
1.1 – 1.12	Taking ergonomic rules into account when designing workplace.
1.6	Providing acoustic isolation. Taking acoustic measurements.
1.13 – 1.15	Carrying out regular checks for defects in equipment and electrical wiring.
1.13 – 1.15	Ensuring that defects are repaired by an electrical expert.
	2. Visual Display Units (VDU)
2.1 – 2.3	Ensuring that appropriate equipment is provided and properly used.
2.1 – 2.3	Taking regular breaks while working on VDUs according to the legislation.
2.1 – 2.3	Organising a rotation of tasks between those requiring VDU use and those which don't.
	3. Software and hardware ergonomics
3.1 – 3.3	Providing online help.
3.1 – 3.3	Providing regular software and hardware upgrading.
	4. Work organisation
4.1 – 4.9	Providing employees with suitable instructions.
4.1 – 4.9	Regularly reviewing work organisation.
4.1 – 4.9	Consulting employees on decisions regarding work organisation.
4.1 – 4.9	Organising regular group meetings at the office.
	5. Psychosocial issues
5.1 – 5.2	Ensuring working time legislation is implemented.



Risk Assessment for Teleworkers

5.1 – 5.2	Ensuring private and working life are isolated one from another.
5.3 – 5.8	Organising regular face-to-face meetings at the office or at home with bosses and/or colleagues.
6. Health and safety management issues	
6.1 – 6.5	Systematic medical monitoring of employees' health (especially for eyesight, hearing problems and musculoskeletal problems).
6.1 – 6.5	Continuous evaluation of the effectiveness of preventive measures.
7. Information and training	
7.1 – 7.2	Providing OSH guidance.
7.1 – 7.2	Providing regular training.

Case study: Is teleworking a solution for everybody?

Rita's workplace is far from home and she often puts in overtime. She is in charge of graphic design at her company, and is very good at her job.

When her employer proposes that she telework from home, Rita is enthusiastic. All the equipment will be provided by her company and she feels that at last she has the opportunity to organise her working time to suit herself.

But little by little, she notices that working conditions are not optimum. She does not have enough room and her working space is not ergonomically organised. She has trouble concentrating her attention on her work because of the activities of others in the home. Her neighbours are noisy. She has technical problems with mobile reception, which sometimes makes it hard to reach customers and work colleagues. Her working equipment is dangerous for her children. One of them had a fall when his feet became entangled in electrical wires. There is no lock on the door of the room where Rita works.

Eventually, Rita finds herself working at night because it's the only way she can get enough peace. She is starting to have second thoughts about teleworking from home.

http://www.insht.es/InshtWeb/Contenidos/Documentacion/TextosOnline/FichasNotasPracticas/Ficheros/np_efp_38.pdf

References

[1] Framework Agreement on telework, Brussels, 16 July 2002. UNICE, ETUC, UEAPME, CEEP, http://ec.europa.eu/employment_social/news/2002/jul/telework_en.pdf

[2] Aborg C, Fernström E, Ericson M, *Telework – Work Environment and Well Being. A longitudinal Study*. Uppsala University, Department of Information Technology, Technical report, 2002-031, p. 6.



Risk Assessment for Teleworkers

[3] IOSH – Direct info 06.1 ‘Out of “Site”, out of mind?’
<http://www.iosh.co.uk/index.cfm?go=technical.details&scid=12>

[4] Emergence News. Teleworking to Triple by 2010
<http://www.emergence.nu/news/triple.html>

[5] SIBIS, Matching up to the Information Society. An evaluation of the EU, the EU Accession countries, Switzerland and the United States. RAND Europe, August 2003.

[6] European Foundation for the Improvement of Living and Working Conditions, Fourth European Working Condition Survey, Luxembourg: Office for Official Publications of the European Communities, 2007, p. 41.

[7] Implementation of the European Framework agreement on telework. Report by the European Social Partners, Adopted by the Social Dialogue Committee on 28 June 2006, September 2006.
http://ec.europa.eu/employment_social/news/2006/oct/telework_implementation_report_en.pdf

[8] Le télétravail en France. Recommandation, p. 17. La Documentation française. Le Forum des droits sur l’internet.
<http://lesrapports.ladocumentationfrancaise.fr/BRP/044000609/0000.pdf>

Further information

- European legislation on the introduction of measures to encourage improvements in the safety and health of workers at work. Framework Directive 89/391/EEC. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31989L0391:EN:HTML>
- Council Directive 90/270/EEC of 29 May 1990 on the minimum safety and health requirements for work with display screen equipment (fifth individual Directive within the meaning of Article 16 (1) of Directive 89/391/EEC) http://eur-lex.europa.eu/Result.do?T3=270&T1=V3&Submit=Rechercher&RechType=RECH_naturel&T2=1990
- EU Framework agreement on telework: http://ec.europa.eu/employment_social/news/2002/jul/telework_en.pdf
- Homeworking. Guidance for employers and workers on health and safety. HSE – UK INDG226 – June 2006. <http://www.hse.gov.uk/pubns/indg226.pdf>
- General advice regarding call centre working practices – Local Authority Circular (LAC Number: 94/2). HSE – UK – October 2006. This guidance has a specific section on telehomeworking. <http://www.hse.gov.uk/lau/lacs/94-2.pdf>
- ‘Out of “site”, out of mind?’ Managing office teleworking in the 21st century. IOSH – Direct info 06.1. This guidance provides an assessment checklist of office teleworking. <http://www.iosh.co.uk/index.cfm?go=technical.details&scid=12>
- A Sound Working Environment in Call and Contact Centres. Advice and Guidelines. Arbetslivsinstitutet – 2006 – Sweden. Some of the observations made in this guidance are useful for teleworkers (workplace organisation for instance). http://cedoc.sirio.regione.lazio.it/DOCUMENTI/06_64_112_CONDIZIONI_DI_LAVORO.pdf
- A shorter version of this text is available at: http://www.av.se/dokument/inenglish/broschures/adi_607eng.pdf
- Telework safety checklist: International Trade Administration Telework Appendices, <http://www.ita.doc.gov/hrm/telework/safety.htm>
- Steps to telework: checklist for employees MIRTI Handbook <http://www.telework-mirti.org/handbook/inglese/2checkee.htm>



Risk Assessment for Teleworkers

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- General information provided by the European Foundation for the Improvement of Living and Working Conditions, Dublin. <http://www.eurofound.europa.eu/areas/industrialrelations/dictionary/definitions/TELEWORK.htm>
- 'Telework – Is it for me?' This document tells about the benefits which may be expected from telework. <http://etc.gov.mt/docs/telwork.pdf>
- Legal problems in working from home. Le travail à domicile. Dossier INRS – France. [http://www.inrs.fr/INRS-PUB/inrs01.nsf/inrs01_catalog_view_view/B837554BBDD79CF1C1256E600047FEFA/\\$FILE/print.html](http://www.inrs.fr/INRS-PUB/inrs01.nsf/inrs01_catalog_view_view/B837554BBDD79CF1C1256E600047FEFA/$FILE/print.html)
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- National central administration telework implementation pilot programmes guide. Public administration Ministry. September 2006, Spain. http://www.map.es/iniciativas/mejora_de_la_administracion_general_del_estado/funcion_publica/concilia/medidas/teletrabajo/documentes/Manual_Teletrabajo.pdf