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Newsletter

# Insuring kidney donor applicants

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## Introduction

*We published a Newsletter on the insurability of kidney recipients in 2007 which led to an improvement in the tariffs offered to these insureds. Today, we discuss another aspect of renal transplantation,* ***living kidney donors*** *and their potential insurability.*

***"You have donated one of your kidneys? You only have one kidney? Then you are substandard!..."***

*This simplistic view was the starting point for the study of life insurance of "living kidney donors" by the medical team of the International R&D Centre for medical selection and claims at SCOR Global Life. Kidney donation is becoming increasingly common throughout the world, with the United States and Japan leading the way in this field, and the studies referenced in this Newsletter came from these two countries.*

*We are convinced that a dynamic interaction between the two areas of expertise, insurance and medicine, will further expand our experience of these risks.*

*Therefore, it is a pleasure to present an extract from an article we published in a specialised medical journal "Le Courrier de la Transplantation", resulting from privileged contacts SCOR Global Life maintains with several specialists and key figures involved in the field of kidney donation.*

*Your usual SCOR Global Life contact will be pleased to provide you with any additional information you might need.*

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*Living kidney donors often face difficulties when applying for life and temporary or permanent disability insurance to contract mortgages, for instance.*

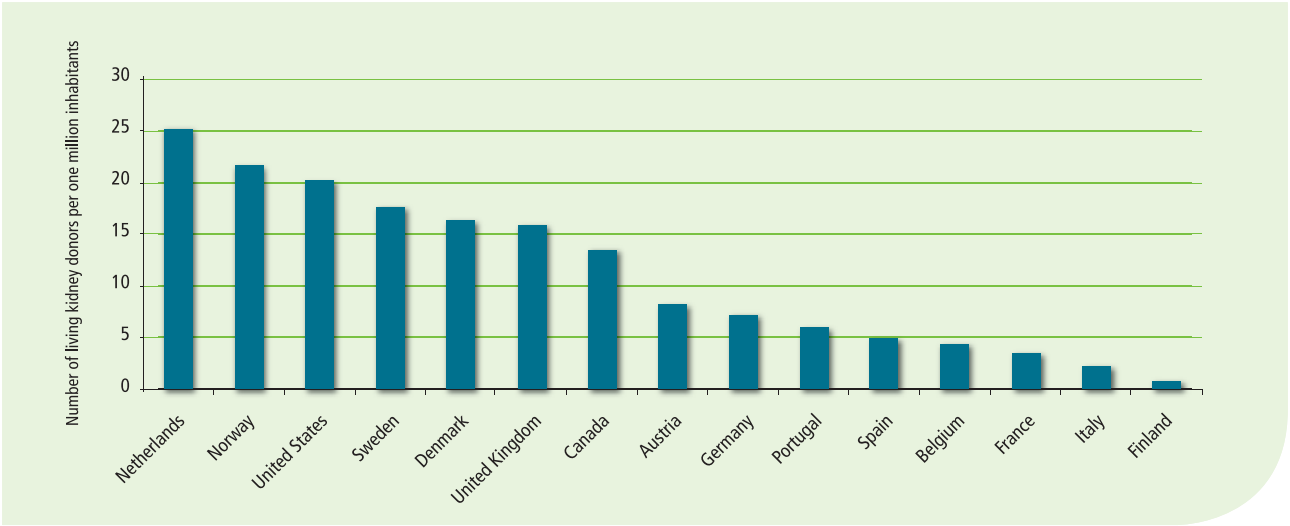
*This article provides the opinion of a medical director of a reinsurance company. After a short introduction to life insurance, it sets out to analyse and answer the question all insurance companies would instinctively ask in such situations:*

***"You only have one kidney. You must be at risk… but… what is the risk?"***

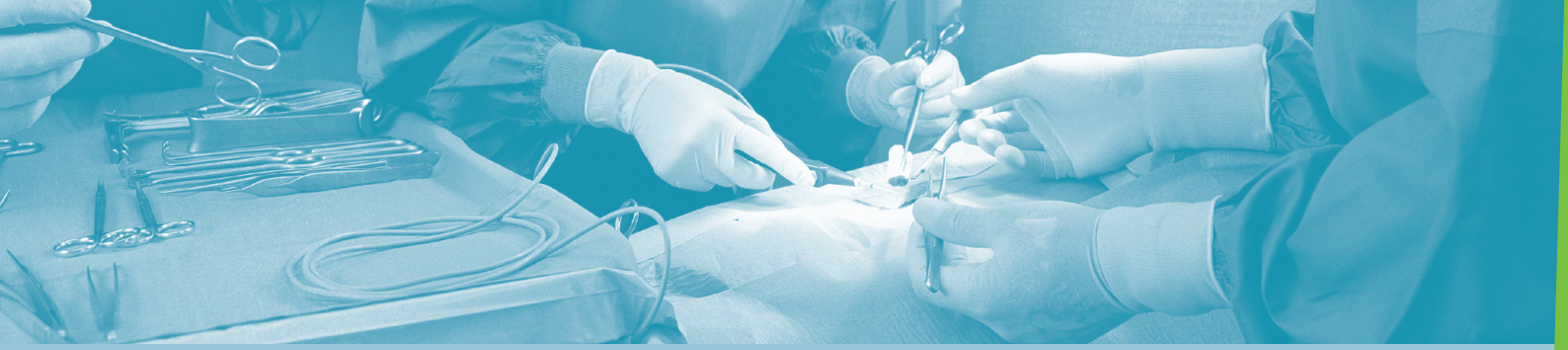
# Living kidney donors: are they substandard risks?

***Extract from the journal "Le Courrier de la Transplantation – Vol. XI – no. 3 July-August-September 2011"***

End stage chronic kidney disease requires replacement therapy either by extra-renal filtration (haemodialysis or peritoneal dialysis) or by renal transplantation. Whenever possible, transplantation is preferable due to the better quality of life of the organ recipients and, as observed in most studies, increased patient survival rates. Dialysis is a problematic form of treatment and not without risk.
In order to carry out transplantation a donor organ is needed which can come from either a living donor or a cadaver. In both cases, thorough tests are required to determine the feasibility of the transplant. The procedure is also regulated by extremely strict administrative and ethical rules. Although living donors only represent 7% of the transplants performed in France (according to the records of the Biomedicine Agency), the use of living donors is currently the subject of many changes being made to the laws on bioethics, as techniques have improved and the generosity of living donors results in a significant improvement of the post-transplant results (see the Figure below).




Number of living kidney donors per one million inhabitants in 2009.
The number of transplants involving a living donor varies considerably according to the country.
The trend is generally on the rise.



For several years there has been a disparity between the number of kidneys available for transplants and the number of patients waiting for transplants: in other words, there is a shortage of available kidneys. One way of overcoming this disparity is to appeal to healthy people to donate their kidneys wherever possible; therefore, the number of living kidney donors is set to increase.

Insurers have to decide whether donors, who have undergone surgery to remove the organ and now live with a single kidney, have an increased risk of mortality, temporary or permanent disability. If this is the case, it would impact on an insurer's technical results and therefore need to be covered by an extra premium.

Two large scale medical trials have recently been published on the outcome of living kidney donors. They are valuable studies as they include large numbers of living donors followed up over relatively long periods, enabling insurers to draw fairly decisive and useful conclusions.

The first was an American study. It was carried out by a medical team working at the University of Minneapolis and published in the New England Journal of Medicine [1]. Over 3,900 donors were followed up over periods ranging from a few months to approximately 40 years. These donors were compared to control subjects with both their kidneys.

Mortality was one of the parameters studied. This was identical in both living donors and the control population. The study emphasised the excellent quality of life and extremely good overall physical and mental long-term health of living donors.

The second study was carried out in Japan. It was produced by a medical team from the University of Kyoto, published in Transplantation [2] and included over 600 donors. It provided a lot of information. One initial finding, which was reassuring, is worth highlighting. The mortality rate for the surgery of donation was nil; however, three severe complications were reported immediately after removal of the kidney. In all cases, the complications were treated without long-term problems. The second major finding concerned long-term survival rates. With a maximum period of 35 years and an average follow-up of 10 years, the mortality of living donors was slightly lower than that of a Japanese control population.

## What should insurers retain from these studies?

The first message is that insurers should now consider that kidney donation does not increase the mortality risk. Living kidney donors are people who, in one way or other, have been medically selected for their ability to donate an organ. They have undergone comprehensive medical checks and in-depth tests to ensure that living with a single kidney would not be harmful to them.

The second message is that not only do living kidney donors have excellent survival rates but they also score extremely highly in terms of general overall health and quality of life. Living with a single kidney seems to encourage people to be careful: "I know that I only have one kidney so I monitor my blood pressure, I have regular blood checks, I eat a balanced diet, I do sport, etc."

The only negative note to this positive overview is that the situation may change. Under increasing pressure of demand for kidneys, the selection of living kidney donors may become less strict. For example, we have observed cases in which factors such as obesity, high blood pressure, and borderline renal function were not considered to be absolute contraindications to donation. Moreover, these cohorts should be regularly monitored in terms of mortality and morbidity to compare their rates to those of the general population, or, even better, to those of a matched population to determine the long-term consequences of kidney donation.

**At present, living kidney donation should not be considered to be a substandard risk, provided that residual renal function is normal and there are no associated risk factors.**

***Références Bibliographiques***


1. Ibrahim HN, Foley R, Tan L et al. Long-term consequences of kidney donation. New J England Med 2009; 360:459-69.
2. Okamoto M, Akioka K, Nobori S et al. Short- and long-term donor outcomes after kidney donation: analysis of 601 cases over a 35-year period at Japanese single center. Transplantation 2009; 87:419-23.



**Yvanie Caillé,** Managing Director of Renaloo, an association for the support, information of and help to patients suffering from kidney failure and their families.

### 98% of donors would do it again…

A survey on the quality of life of living kidney donors has recently been carried out. And the results are just as reassuring as the data from medical literature:

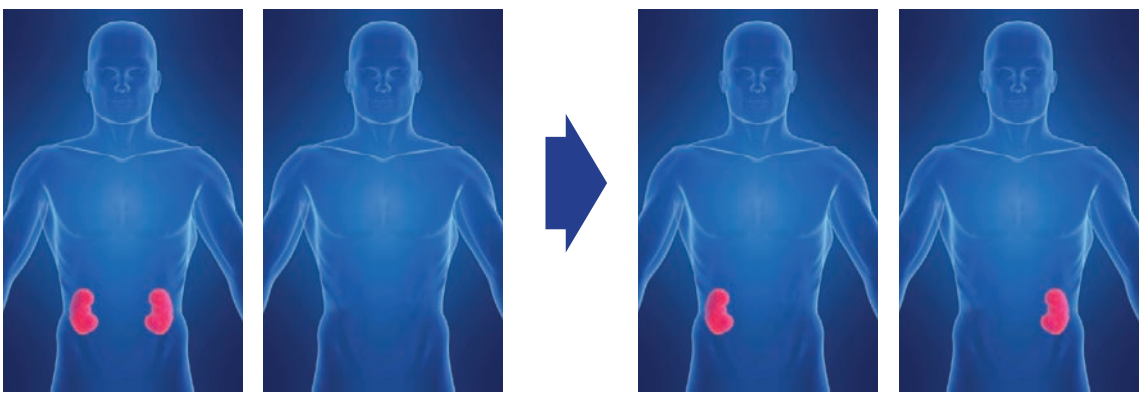
**Living donors live well and have no regrets.**

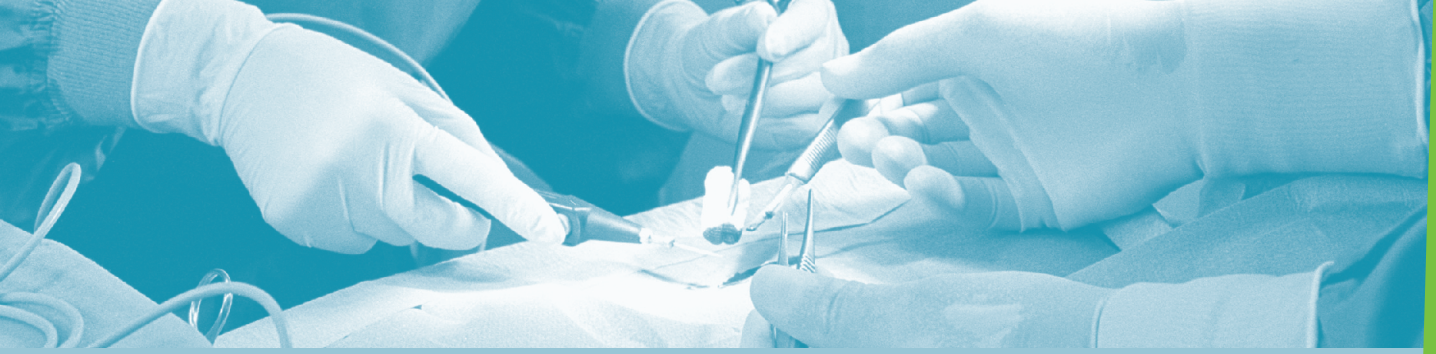
As can be seen by their enthusiasm and involvement in the act: 98% of people "would do it again" and 95% would recommend it to another person. They also unreservedly expressed their joy and pride in having helped to improve the long-term health of a family member. And they refuse to consider their action as heroic or a sacrifice.

**They took their decision "without hesitating", it was "natural" and "normal".**

These testimonies, based on actual experiences, are sincere and effective pleas for an increase in the number of such transplants.

They also incite to a different perspective on living kidney donors. A point of honour should be made that they are not unfairly penalised in their daily lives such as when taking out life insurance. This is the direction taken by the SCOR Group, and we should congratulate ourselves on our approach.







**Professor Eric Thervet,** Service de Néphrologie (Nephrology Department), Hôpital Européen Georges Pompidou - Paris, France

**Why are the Netherlands the world champions of living kidney donors?**

*The involvement of a country and the way it manages the thorny issue of the demand for organs is the result of a multitude of factors. Although the role and commitment of strong local and/or national personalities should not be overlooked, the most important factors are economic, societal, cultural, religious and geographic.*

*For example, the high number of living donors in Norway is understandable due to the distances and travelling conditions that make removal of organs from brain-dead patients problematic. The role of cultural and political factors is another issue which explains the rise in the number of living donors in Japan. It is also fascinating to see the differences even within a single continent with a certain cultural unity, such as Europe.*

*To answer the question relating to the Netherlands, the widespread use of living donors can probably be explained by the existence of a supranational organisation for cadaver donors (Eurotransplant), as well as an Anglo-Saxon, dare I say Protestant, tradition and a pragmatic approach promoted by charismatic leaders.*

**What are the conditions which have to be met to become a living kidney donor?**

*This is also an extremely interesting question and central to the removal of organs from living donors. It is both easy and difficult to answer this question. Regarding the issue of links with the donor, this is something lawmakers must decide. The answers will therefore be determined by law, even if this is, by definition, an evolving domain. At present, to become a donor you need to be a sibling, parent, child, spouse or someone who has a close relationship with the recipient for over two years. A new door has recently opened, namely donation between duly attested "friends"; this is especially the case in paired donation (that is, between two donors to be matched with two other recipients).*

*... / ...*



*Professor Eric Thervet...*

*From the medical point of view, many tests are required and there are a large number of contraindications. There is a long list of international recommendations. It is always important to ensure that the donor's wish is the first consideration, followed by that of the recipient. It is only after fully assessing this aspect that the purely medical evaluation is undertaken, though it must be stated that this ends up excluding up to 40% of potential donors (personal data). The "age" of donors is also a significant issue, as it varies considerably depending on the medical teams.*

*With regards to which tests are required, it is difficult to supply an exhaustive list because it varies from team to team. Based on international recommendations, the following are considered to be contraindications:*

- *Impaired renal function defined by a glomerular filtration rate below 80 ml/min/1.73 $m^2$*
- *Body mass index ≥ 30-35 $kg/m^2$*
- *Glucose intolerance*
- *Severe or uncontrolled hypertension*
- *Cardiovascular disease*
- *Tumour*
- *Active hepatitis B or C*
- *HIV positive serology*
- *The donor's psychological stability must be assessed by an independent expert in order to exclude any element of constraint or contract*
- *From a surgical viewpoint, the contraindications depend on the experience and aims of the team.*

*As you can see, a large number of rules apply in this domain because, more than in any other field of medicine, the principle of "Primum non nocere" must be applied* [(1)].

(1) "Above all, do no harm - Hippocrates"

# SCOR Global life and living kidney donors

The evaluation of a medical file of a living kidney donor is straightforward; firstly, determine the date of the organ-removal surgery and, secondly, assess the current condition of the kidney.

As we have seen, surgical complications may occur which, although rare, may require a six-month postponement after surgery. After six months, if the renal function is satisfactory, the case will be rated as "standard".