



**Kidney
Cancer**
CANADA

Questions to ask before you have a kidney removed for kidney cancer

If you have a small kidney cancer (less than 7 cm.), you have several treatment options available to you. These options include:

- Radical Nephrectomy
- Partial Nephrectomy
- Ablation Techniques
- Active Surveillance

RADICAL NEPHRECTOMY

A radical nephrectomy is the surgical removal of the whole kidney. This procedure can be done using either an open or laparoscopic approach. According to recent evidence, a radical nephrectomy may be considered “over-treatment” for some small kidney cancers (less than 7 cm.). Removing the full kidney can affect the patient’s overall kidney function leading to higher risk of kidney disease later in life.

The following questions have been developed to help you understand the other options that may be available to you as a patient with kidney cancer.

AM I A CANDIDATE FOR PARTIAL NEPHRECTOMY?

A partial nephrectomy is a surgical procedure that involves removing the kidney tumour and a small amount of normal tissue surrounding the tumour. This procedure can be done either by an open or laparoscopic approach.

The surgeon’s decision to do a partial nephrectomy takes into account several factors and always includes an analysis of the benefits versus the risks for the individual patient. These factors include:

- The size of the tumour
- The presence of tumours in both kidneys
- Whether the patient has only one functioning kidney
- Whether the patient has other diseases that may affect their kidney function, now or in the future.

To find out if a partial nephrectomy is a good option for your treatment plan, use the following questions to have a discussion with your urologist.

1. What size is my kidney tumour?

A partial nephrectomy should be considered first for any tumour less than 7 cm. However, larger tumours (between 4 and 7 centimetres) can make it more challenging technically.

2. Is my tumour in a location in the kidney that is suitable for a partial nephrectomy?

Tumours that are located in the upper or lower pole of the kidney or are in a peripheral location of the kidney are most suited to removal by partial nephrectomy.

3. Do I have other medical conditions that threaten my long-term kidney function?

It is important to preserve the function of your kidneys with a partial nephrectomy if you have any medical condition that can threaten your future kidney function. Examples of these conditions include diabetes, high blood pressure, kidney stone disease, and chronic kidney disease.

4. Does my history of past surgical operations prevent the use of a partial nephrectomy in my case?

If you have had previous abdominal surgery for any reason, it may increase the complexity of a partial nephrectomy to the point that it is not a suitable option.

5. What is my urologist's experience with partial nephrectomies?

A partial nephrectomy is a more complex surgery than a radical nephrectomy (removal of the entire kidney). Therefore, it is best done by a surgeon with experience doing this procedure. If your urologist is not comfortable with the procedure, ask whether he/she is willing to send you to another urologist for a second opinion.

6. Do I have tumours present in both of my kidneys?

Having tumours present in both of your kidneys (either at the same time or at subsequent times) is a good example of a time to consider a partial nephrectomy for one or all of the kidney tumours.

7. Do I have multiple tumours in my kidneys?

Having multiple tumours in the kidneys may indicate a hereditary form of kidney cancer.

8. Do I have only one functioning kidney?

If you only have one kidney then a partial nephrectomy must be considered. Otherwise, you will need dialysis to perform the function of your kidneys.

9. Does my own diagnosis or a family history suggest a genetic predisposition to kidney cancer?

If your doctor suspects that you may have a genetic tendency towards kidney cancer then sometimes you may have another tumour(s) at some time in the future. In these cases, it is best to consider a partial nephrectomy to conserve as much kidney function as possible.

AM I A CANDIDATE FOR ABLATION TECHNIQUES?

Ablation techniques destroy the kidney tumour while preserving the normal kidney tissue surrounding the tumour. These techniques include both cryoablation and radiofrequency ablation:

- **Cryoablation** is a procedure in which tissue is frozen to destroy abnormal cells. This is usually done with a special instrument that contains liquid nitrogen or liquid carbon dioxide. A kidney tumour can be treated by positioning of the instrument by laparoscopy or sometimes with x-ray guidance.
- **Radiofrequency ablation** is a procedure that uses radio waves to heat and destroy a tumour. The radio waves travel through electrodes (small devices that carry electricity). Radiofrequency ablation may be done by laparoscopy, by ultrasound or by x-ray guidance.

The surgeon's decision to perform an ablation technique takes into account several factors and always includes an analysis of the benefits versus the risks for the individual patient. These factors include:

- The size of the tumour
- The presence of tumours in both kidneys
- Whether the patient has only one functioning kidney
- Whether the patient has other risk factors that may affect their kidney function, now or in the future
- Whether the patient has other diseases that may affect the ability to tolerate a surgical procedure

Ablation techniques are still relatively new procedures and are probably best reserved for patients who are not ideal candidates for surgery due to other medical conditions. To find out if an ablation technique is a good option for your treatment plan, use the following questions to have a discussion with your urologist.

1. What size is my kidney tumour?

Ablation techniques can be performed for tumours less than or equal to 4 centimetres.

2. Is my tumour in a location in the kidney that is suitable for an ablation technique?

Tumours that are located in the upper or lower pole of the kidney or are in a peripheral location of the kidney are most suited to treatment by ablation. If the tumour is located near the collecting system of the kidney then there is a risk of damaging it. Also, the best results of this procedure are obtained if there are no nearby blood vessels.

3. Do I have other medical conditions that threaten my long-term kidney function?

It is important to preserve the function of your kidneys if you have any medical condition that can threaten your future kidney function. Examples of these conditions include diabetes, high blood pressure, kidney stone disease, and chronic kidney disease.

4. What is my urologist's/radiologist's experience with the ablation technique?

Ablation techniques are new approaches to the treatment of kidney cancer. Therefore, they are best done by a urologist/radiologist with experience doing these procedures. If he/she is not comfortable with the procedure, ask whether he/she is willing to send you to another institution for a second opinion.

5. Do I have tumours present in both of my kidneys?

Having tumours present in both of your kidneys (either at the same time or at subsequent times) is a good example of a time to consider ablation techniques for one or all of the kidney tumours.

6. Do I have only one functioning kidney?

If you only have one kidney then ablation procedures should be considered as options. Otherwise, you will need dialysis to perform the function of your kidneys.

7. Do I have multiple tumours in my kidneys?

Having multiple tumours in the kidneys may indicate a hereditary form of kidney cancer.

8. Does my own diagnosis or a family history suggest a genetic predisposition to kidney cancer?

If your doctor suspects that you may have a genetic tendency towards kidney cancer then sometimes you may have (an)other tumour(s) at some time in the future. In these cases, it is best to consider ablation techniques to conserve as much kidney function as possible.

9. Do I have other medical conditions that would make a surgical operation more risky for me?

If you have other medical conditions that would make a surgical operation more risky, then your doctor may consider the use of ablation techniques for your treatment.

AM I A CANDIDATE FOR ACTIVE SURVEILLANCE?

With active surveillance, the urologist closely monitors a patient's kidney cancer but does not offer other treatment until symptoms appear or the growth rate of the tumour changes.

The surgeon's decision to use active surveillance for the treatment of kidney cancer takes into account several factors and always includes an analysis of the benefits versus the risks for the individual patient. These factors include:

- The size of the tumour
- The age of the patient
- The presence of tumours in both kidneys
- Whether the patient has only one functioning kidney
- Whether the patient has other diseases that may affect their kidney function, now or in the future
- Whether the patient has other diseases that may affect his ability to tolerate a surgical procedure.

Active surveillance is still a relatively new option. It is usually reserved for patients who are not ideal candidates for surgery due to other medical conditions or patients with advanced age because these small tumours grow very slowly. Active surveillance may also be used for patients who have a genetic condition resulting in the kidney cancer (such as von Hippel-Lindau syndrome). To find out if active surveillance is a good option for your treatment plan, use the following questions to have a discussion with your urologist.

1. What size is my kidney tumour?

Active surveillance can be used for tumours less than or equal to 4 centimetres.

2. Do I have other medical conditions or risk factors that would make a surgical operation more risky for me?

Your doctor may consider active surveillance for you if you have other medical conditions that would make surgery risky for you.

3. With my advanced age, is it best to observe my kidney cancer to find out if it is going to grow quickly or not?

Many of the small kidney tumours (less than 4 cm.) grow very slowly and may even be benign (non-cancerous).

CONCLUSION

Use these questions as guidelines to start the discussion with your doctor about your treatment options before you have your surgery. Have your doctor outline the pros and cons of each of these procedures for your personalized treatment plan. In many cases, a diagnosis of a small tumour means that you do not have to make a quick decision about surgery. Take the time to explore your options, and, if necessary, to seek a second opinion about treatment options that may be able to preserve your kidney function for the long term.