Some Helpful Facts.....

1. Staging of your colorectal cancer will help determine the type of treatment you receive for your colorectal cancer.
2. The Grade of your cancer is often simplified as either Low Grade or High Grade and can affect your treatment.
3. Colorectal cancer can spread through the lymph nodes – the liver and lungs being the most prominent distant organs affected in the body.
4. The size of your colorectal tumour is not a predictor of outcomes.

If a person has been diagnosed with colorectal cancer, one of the first things they will want to know is the stage of their cancer. The stage refers to the extent of the cancer or how far it has spread. The stage of colon or rectal cancer is important because it will determine the best therapeutic approach in the management of the disease.
The tool used to describe the stage of a patient’s disease is the **TNM Staging System**. Doctors use the results from diagnostic tests and scans to answer these questions:

1. **Tumor (T)**: Has the tumor grown into the wall of the colon or rectum? If so, how many layers of the colorectal wall are affected?
2. **Node (N)**: Has the tumour spread to the lymph nodes? If so, where and how many lymph nodes are involved?
3. **Metastasis (M)**: Has the cancer spread to distant organs of the body? If so, where and how many organs are involved?

The results are combined to determine the stage of cancer for each person. The image below highlights the use of N and M in the TNM Staging System and to what each refers.

(Please note: For colorectal cancer, staging often can’t be completed until after surgical resection of the primary tumour has taken place to remove the primary tumour along with surrounding tissue containing lymph nodes, and possibly lesions found on other organs.)

There are five stages (**Stage 0 through IV**) to colorectal cancer. After each element has been determined, they are combined to form an overall stage of the cancer in roman numerals, the higher the roman numeral, the more advanced the cancer. This is generally how the cancer is referred to between doctor and patient:
• **Stage 0** - The cancer is confined to the innermost layer of the colon or rectum. It has not yet invaded the colorectal wall. It is also referred to as **high grade dysplasia or an in situ cancer**.

• **Stage I** - The cancer has penetrated some or several layers of the colon or rectum wall.

• **Stage II** - The cancer has penetrated the entire wall of the colon or rectum and may extend into nearby tissue(s).

• **Stage III** - The cancer has penetrated the entire wall of the colon or rectum and has spread to the regional lymph nodes.

• **Stage IV** - The cancer has penetrated the entire wall of the colon or rectum, spread to the regional lymph nodes and has spread to distant organs, usually the liver or lungs.

### STAGES OF COLORECTAL CANCER

As colorectal cancer progresses from Stage 0 to Stage IV, the cancer cells grow through the layers of the rectum wall and spread to lymph nodes and then to distant organs. The liver and lungs are the most common sites of spread in patients with colorectal cancer.

[Image Source: Colorectal Cancer Staging - http://www.enile.co.uk/portfolio/illustration-08.html](http://www.enile.co.uk/portfolio/illustration-08.html)

The size of the colorectal tumor does not appear to be important when it comes to outcomes. The aggressiveness of colorectal cancer is based entirely upon its ability:

- to grow, and
- invade the colorectal wall, lymphatic system, and blood vessels.

### Further Staging Classification

Within each main category, the disease is classified even further and assigned a number with a letter to indicate the extent of the disease. These assignments are based on the structure of the colon, as well as how far the cancer has grown through the layers of the colon wall. Please see below:
## COLORECTAL CANCER STAGING

<table>
<thead>
<tr>
<th>STAGE</th>
<th>SUB-STAGE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAGE 0</td>
<td></td>
<td>This is the earliest form of colorectal cancer and it has not grown beyond the innermost layer of the colorectum. <strong>Please see image appearing above and below.</strong></td>
</tr>
<tr>
<td>STAGE I</td>
<td></td>
<td>The cancer has grown into the inner layer of the colorectum called the <em>mucosa</em>, to the next layer of the colorectum, called the <em>submucosa</em> (see image appearing below). It has NOT spread to the lymph nodes.</td>
</tr>
<tr>
<td>STAGE II</td>
<td>STAGE IIA</td>
<td>The cancer has reached the outer layers of the colorectum, called the <em>muscularis externa</em>. But it has not completely grown through.</td>
</tr>
<tr>
<td></td>
<td>STAGE IIB</td>
<td>The cancer has grown through the outer layer of the colorectum, called the <em>serosa</em>.</td>
</tr>
<tr>
<td></td>
<td>STAGE IIC</td>
<td>The cancer has grown through the outer layer of the colorectum (serosa) and has grown to nearby organs or structures, such as the bladder.</td>
</tr>
<tr>
<td>STAGE III</td>
<td>STAGE IIIA</td>
<td>The cancer has grown through the colorectum wall and is found in 1-3 regional lymph nodes. It has not spread to distant nodes or organs.</td>
</tr>
<tr>
<td></td>
<td>STAGE IIIB</td>
<td>The cancer has grown through the colorectum wall and is found in 1-3 regional lymph nodes and penetrates the visceral peritoneum (serosa) or invades other nearby organs or structures.</td>
</tr>
<tr>
<td></td>
<td>STAGE IIIC</td>
<td>The cancer has grown beyond the outer layer of the colorectum and is found in 4 or more nearby lymph nodes but not in distant organs.</td>
</tr>
<tr>
<td>STAGE IV</td>
<td>STAGE IVA</td>
<td>Cancer has spread to one distant site such as the liver or the lungs.</td>
</tr>
<tr>
<td></td>
<td>STAGE IVB</td>
<td>Cancer has spread to two or more distant sites, such as the lungs and liver.</td>
</tr>
</tbody>
</table>

### Layers of the Colon & Rectum

![Layers of the Colon & Rectum](https://www.emedicinehealth.com/image-gallery/colon_illustration/images.htm)

**Colorectal Cancer Grade**

Colorectal cancer can also be described by its Grade (G). The cancer’s grade can affect your treatment and your outlook. The grade describes how closely the cancer looks like normal tissue when viewed under a microscope.

The scale used for grading colorectal cancers is from 1 to 4.

- **Grade 1** (G1) means the cancer looks much like normal colorectal tissue (*well differentiated*)
- **Grade 2** (G2) means the cancer is starting to look less like normal colorectal tissue (*moderately differentiated*)
  fall somewhere in between
- **Grade 3** (G3) means the cancer is looking more like abnormal tissue (*poorly differentiated*)  *G2 and G3 typically fall somewhere in between G1 and G4*
- **Grade 4** (G4) means the cancer looks very abnormal (*undifferentiated*)

The grade of the cancer is often simplified as either **Low Grade** (G1 or G2) or **High Grade** (G3 or G4). Low-grade cancers tend to grow and spread more slowly than high-grade cancers. Most of the time, the outlook is better for low-grade cancers than it is for high-grade cancers of the same stage. Doctors sometimes use the grade to help decide if a patient should get additional (adjuvant) treatment with chemotherapy after surgery to help secure best outcomes for their patients.

Pathologists (specialists who examine laboratory samples of body tissue under a microscope for diagnostic purposes) compare cancerous tissue with healthy tissue. Healthy tissue usually contains many different types of cells grouped together. If the cancer looks similar to healthy tissue and has different cell groupings, it is called “differentiated” or a “low grade tumour”. If the cancerous tissue looks very different from healthy tissue, it is called “poorly differentiated” or a “high grade tumour”. It is the cancer’s grade that may help the oncologist predict how quickly the cancer will spread. Generally, the lower the tumor’s grade, the better the prognosis.

Do you wish to learn more about the staging of your cancer? Call us or email us. We are eager to help!

**Toll Free: 1 833 79 CCRAN (22726)**

Or email us at: info@ccran.org

Together, Anything is Possible!