The Excretory System: Function

• The excretory system *filters wastes from the blood and removes the wastes from the body.*

• Excretion: removal of waste products from an organism

<table>
<thead>
<tr>
<th>SALTS</th>
<th>H₂O</th>
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<tbody>
<tr>
<td>CO₂</td>
<td>UREA</td>
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Urea: waste product formed from the breaking down of proteins by cells
Organs of the Excretory System

The major organs of the excretory system are the **kidneys**

Other organs that help:

- Bladder (Urinary)
- Lungs
- Skin
- Liver
Kidneys

- The kidneys are bean-shaped organs that lie on either side of the lumbar (lower back) vertebrae.
- They filter out urea and other wastes from the blood and mix them with water to form urine.
- Urine = urea + salts + water.
On to the Bladder

• After urine is formed in the kidneys it passes through a tube called the **ureter** **to get to the urinary bladder**

• Urine is stored in the bladder until it is ready to be excreted from the body
Urination

• When the bladder is full, the nervous system signals the smooth muscles surrounding it to contract, forcing the urine through the urethra and out of the body.
Other organs of the excretory system:

**Skin:** removes wastes (salts, urea, H$_2$O) through sweating

**Liver:** breaks down large waste products so they are easier to excrete

**Lungs:** remove CO$_2$ during exhalation
Excretory/Urinary System

- Aorta
- Adrenal gland
- Posterior vena cava
- Renal artery and vein
- Kidney
- Ureter
- Urinary bladder
- Urethra
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<th>FUNCTION</th>
<th>MAIN ORGANS INVOLVED</th>
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<tbody>
<tr>
<td>KIDNEYS</td>
<td>BLADDER</td>
</tr>
<tr>
<td>URINE</td>
<td>OTHER ORGANS</td>
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