Inspiratory CT

Scanner make	GE	GE	SIEMENS	SIEMENS	PHILIPS	PHILIPS	PHILIPS
Scanner model	LS 16	VCT-64	Sensation-16	Sensation-64	16 slice	40 slice	64 slice
Scan Type	Helical	VCT Helical	Spiral	Spiral	Axial Helix	Axial Helix	Axial Helix
Rotation Time (s)	See mA	See mA	0.5	0.5	0.5	0.5	0.5
Det. Configuration	16 x 0.625	64 x 0.625	16 x 0.75	64 x 0.6	16 x 0.75	40 x 0.625	64 x 0.625
Pitch	1.375	1.375 mm	1.1	1.1	1.188	0.923	0.923
Speed (mm/rot)	13.75	13.75	13.2	21.1	0.5	0.5	0.5
kVp	120	120	120	120	120	120	120
mA	400 @ 0.5s	400 @ 0.5s	*Effective mAs:* 200	*Effective mAs:* 200	mAs 200	mAs 200	mAs 200
Dose modulation	Auto-mA off	Off	CARE Dose 4D off	CARE Dose 4D off	Off	Off	Off
Reconstructions							
RECON1							
Algorithm	BONE	BONE	B46f	B46f	Detail (D)	Detail (D)	Detail (D)
Thickness (mm)	0.625	0.625	0.75	0.75	0.9	0.9	0.9
Interval (mm)	0.625	0.625	0.5	0.5	0.45	0.45	0.45
DFOV (cm)	Lungs*	Lungs*	Lungs*	Lungs*	Lungs*	Lungs*	Lungs*
RECON 2							
Algorithm	Standard	Standard	B31f	B31f	B	B	B
Thickness (mm)	0.625	0.625	0.625	0.75	0.9	0.9	0.9
Interval (mm)	0.625	0.625	0.5	0.5	0.45	0.45	0.45
DFOV (cm)	Lungs*	Lungs*	Lungs*	Lungs*	Lungs*	Lungs*	Lungs*

* reconstruction field of view should encompass the widest diameter of the lung.

Expiratory CT

Scanner make	GE	GE	SIEMENS	SIEMENS	PHILIPS	PHILIPS	PHILIPS
Scanner model	LS 16	VCT-64	Sensation-16	Sensation-64	16 slice	40 slice	64 slice
Scan Type	Helical	VCT Helical	Spiral	Spiral	Axial Helix	Axial Helix	Axial Helix
Rotation Time (s)	See mA	See mA	0.5	0.5	0.5	0.5	0.5
Det. Configuration	16 x 0.625	64 x 0.625	16 x 0.75	64 x 0.6	16 x 0.75	40 x 0.625	64 x 0.625
Pitch	1.375	1.375 mm	1.1	1.1	1.188	0.923	0.923
Speed (mm/rot)	13.75	13.75	13.2	21.1	0.5	0.5	0.5
kVp	120	120	120	120	120	120	120
MA	100 @ 0.5s	100 @ 0.5s	*Effective mAs:* 50	*Effective mAs:* 50	50 mAs	50 mAs	50 mAs
Dose modulation	Auto-mA off	Off	CARE Dose 4D off	CARE Dose 4D off	Off	Off	Off
Reconstructions							
RECON1							
Algorithm	BONE	BONE	B46f	B46f	Detail (D)	Detail (D)	Detail (D)
Thickness (mm)	0.625	0.625	0.75	0.75	0.9	0.9	0.9
Interval (mm)	0.625	0.625	0.5	0.5	0.45	0.45	0.45
DFOV (cm)	Lungs*	Lungs*	Lungs*	Lungs*	Lungs*	Lungs*	Lungs*
RECON 2							
Algorithm	Standard	Standard	B31f	B31f	B	B	B
Thickness (mm)	0.625	0.625	0.75	0.75	0.9	0.9	0.9
Interval (mm)	0.625	0.625	0.5	0.5	0.45	0.45	0.45
DFOV (cm)	Lungs*	Lungs*	Lungs*	Lungs*	Lungs*	Lungs*	Lungs*

* reconstruction field of view should encompass the widest diameter of the lung.

CT Protocol
GE LS-16

8/05/09

(a) Scout views: PA and lateral

The following instructions should be given to the patient:

- Take a deep breath in and hold it
- Breathe and relax

(b) Inspiratory CT

The following instructions should be given to the patient:

- For the first part of this scan, I am going to ask you to take a deep breath in and hold it
- First, let's practice
  - Take a deep breath in
  - Hold it – do not breathe
  - Breathe and relax
- Take a deep breath in
  - Let it out
- Take a deep breath in
  - Let it out
- Breathe all the way IN..IN..IN
  - Keep holding your breath – DO NOT BREATHE!
  - *At end of scan:* Breathe and relax

Start at **bottom** of lungs; end at **top** of lungs.

(c) Expiratory CT

- For the second part of this scan, I am going to ask you to breathe out and hold it out.
- First, let's practice
  - Take a deep breath in
  - Breathe out and hold it – do not breathe
  - Breathe and relax
- Take a deep breath in
  - Let it out
- Take a deep breath in
  - Let it out
- Take another deep breath in
  - Let it out and hold it out
  - Keep holding your breath – DO NOT BREATHE!
  - *At end of scan:* Breathe and relax

Start at **bottom** of lungs; end at **top** of lungs.

Inspiratory CT – for GE LS16

Scanner make	**GE**
Scanner model	**LS 16**
Scan Type	Helical
Rotation Time (S)	See mA
Det. Configuration	16 x 0.625
Pitch	1.375
Speed (mm/rot)	13.75
kVp	120
mA	400 @ 0.5s
Dose modulation	Auto-mA off
Reconstructions	
RECON1	
Algorithm	BONE
Thickness (mm)	0.625
Interval (mm)	0.625
DFOV (cm)	Lungs*
RECON2	
Algorithm	Standard
Thickness (mm)	0.625
Interval (mm)	0.625
DFOV (cm)	Lungs*

*reconstruction field of view should encompass the widest diameter of the lung.

Expiratory CT – for GE LS16

Scanner make	**GE**
Scanner model	**LS 16**
Scan Type	Helical
Rotation Time (S)	See mA
Det. Configuration	16 x 0.625
Pitch	1.375
Speed (mm/rot)	13.75
kVp	120
mA	100 @ 0.5s
Dose modulation	Auto-mA off
Reconstructions	
RECON1	
Algorithm	BONE
Thickness (mm)	0.625
Interval (mm)	0.625
DFOV (cm)	Lungs*
RECON2	
Algorithm	Standard
Thickness (mm)	0.625
Interval (mm)	0.625
DFOV (cm)	Lungs*

*reconstruction field of view should encompass the widest diameter of the lung.

CT Protocol
GE VCT-64

8/05/09

(a) Scout views: PA and lateral

The following instructions should be given to the patient:

- Take a deep breath in and hold it
- Breathe and relax

(b) Inspiratory CT

The following instructions should be given to the patient:

- For the first part of this scan, I am going to ask you to take a deep breath in and hold it
- First, let's practice
  - Take a deep breath in
  - Hold it – do not breathe
  - Breathe and relax
- Take a deep breath in
  - Let it out
- Take a deep breath in
  - Let it out
- Breathe all the way IN..IN..IN
  - Keep holding your breath – DO NOT BREATHE!
  - *At end of scan:* Breathe and relax

Start at **bottom** of lungs; end at **top** of lungs.

(c) Expiratory CT

- For the second part of this scan, I am going to ask you to breathe out and hold it out.
- First, let's practice
  - Take a deep breath in
  - Breathe out and hold it – do not breathe
  - Breathe and relax
- Take a deep breath in
  - Let it out
- Take a deep breath in
  - Let it out
- Take another deep breath in
  - Let it out and hold it out
  - Keep holding your breath – DO NOT BREATHE!
  - *At end of scan:* Breathe and relax

Start at **bottom** of lungs; end at **top** of lungs.

Inspiratory CT – for GE VCT 64

Scanner make	**GE**
Scanner model	**VCT 64**
Scan Type	VCT Helical
Rotation Time (S)	See mA
Det. Configuration	64 x 0.625
Pitch	1.375
Speed (mm/rot)	13.75
kVp	120
mA	400 @ 0.5s
Dose modulation	Off
Reconstructions	
RECON1	
Algorithm	BONE
Thickness (mm)	0.625
Interval (mm)	0.625
DFOV (cm)	Lungs*
RECON2	
Algorithm	Standard
Thickness (mm)	0.625
Interval (mm)	0.625
DFOV (cm)	Lungs*

*reconstruction field of view should encompass the widest diameter of the lung.

Expiratory CT – for GE VCT 64

Scanner make	**GE**
Scanner model	**VCT 64**
Scan Type	VCT Helical
Rotation Time (S)	See mA
Det. Configuration	64 x 0.625
Pitch	1.375
Speed (mm/rot)	13.75
kVp	120
mA	100 @ 0.5s
Dose modulation	Off
Reconstructions	
RECON1	
Algorithm	BONE
Thickness (mm)	0.625
Interval (mm)	0.625
DFOV (cm)	Lungs*
RECON2	
Algorithm	Standard
Thickness (mm)	0.625
Interval (mm)	0.625
DFOV (cm)	Lungs*

*reconstruction field of view should encompass the widest diameter of the lung.

CT Protocol
SIEMENS Sensation-16

8/05/09

(a) Scout views: PA and lateral

The following instructions should be given to the patient:

- Take a deep breath in and hold it

Breathe and relax

(b) Inspiratory CT

The following instructions should be given to the patient:

- For the first part of this scan, I am going to ask you to take a deep breath in and hold it
- First, let's practice
  - Take a deep breath in
  - Hold it – do not breathe
  - Breathe and relax
- Take a deep breath in
  - Let it out
- Take a deep breath in
  - Let it out
- Breathe all the way IN..IN..IN
  - Keep holding your breath – DO NOT BREATHE!
  - *At end of scan:* Breathe and relax

Start at **bottom** of lungs; end at **top** of lungs.

Inspiratory CT – for SIEMENS Sensation-16

Scanner make	**SIEMENS**
Scanner model	**Sensation-16**
Scan Type	Spiral
Rotation Time (S)	0.5
Det. Configuration	16 x 0.75
Pitch	1.1
Speed (mm/rot)	13.2
kVp	120
mA	*Effective mAs:* 200
Dose modulation	CARE Dose 4D off
Reconstructions	
RECON1	
Algorithm	B46f
Thickness (mm)	0.75
Interval (mm)	0.5
DFOV (cm)	Lungs*
RECON2	
Algorithm	B31f
Thickness (mm)	0.75
Interval (mm)	0.5
DFOV (cm)	Lungs*

*reconstruction field of view should encompass the widest diameter of the lung.

(c) Expiratory CT

- For the second part of this scan, I am going to ask you to breathe out and hold it out.
- First, let's practice
  - Take a deep breath in
  - Breathe out and hold it – do not breathe
  - Breathe and relax
- Take a deep breath in
  - Let it out
- Take a deep breath in
  - Let it out
- Take another deep breath in
  - Let it out and hold it out
  - Keep holding your breath – DO NOT BREATHE!
  - *At end of scan:* Breathe and relax

Start at **bottom** of lungs; end at **top** of lungs.

Expiratory CT – for SIEMENS Sensation-16

Scanner make	**SIEMENS**
Scanner model	**Sensation-16**
Scan Type	Spiral
Rotation Time (S)	0.5
Det. Configuration	16 x 0.75
Pitch	1.1
Speed (mm/rot)	13.2
kVp	120
mA	*Effective mAs*: 50
Dose modulation	CARE Dose 4D off
Reconstructions	
RECON1	
Algorithm	B46f
Thickness (mm)	0.75
Interval (mm)	0.5
DFOV (cm)	Lungs*
RECON2	
Algorithm	B31f
Thickness (mm)	0.75
Interval (mm)	0.5
DFOV (cm)	Lungs*

*reconstruction field of view should encompass the widest diameter of the lung.

CT Protocol
SIEMENS Sensation-64

8/05/09

(a) Scout views: PA and lateral

The following instructions should be given to the patient:

- Take a deep breath in and hold it

Breathe and relax

(b) Inspiratory CT

The following instructions should be given to the patient:

- For the first part of this scan, I am going to ask you to take a deep breath in and hold it
- First, let's practice
  - Take a deep breath in
  - Hold it – do not breathe
  - Breathe and relax
- Take a deep breath in
  - Let it out
- Take a deep breath in
  - Let it out
- Breathe all the way IN..IN..IN
  - Keep holding your breath – DO NOT BREATHE!
  - *At end of scan:* Breathe and relax

Start at **bottom** of lungs; end at **top** of lungs.

Inspiratory CT – for SIEMENS Sensation-64

Scanner make	**SIEMENS**
Scanner model	**Sensation-64**
Scan Type	Spiral
Rotation Time (S)	0.5
Det. Configuration	64 x 0.6
Pitch	1.1
Speed (mm/rot)	21.1
kVp	120
mA	*Effective mAs:* 200
Dose modulation	CARE Dose 4D off
Reconstructions	
RECON1	
Algorithm	B46f
Thickness (mm)	0.75
Interval (mm)	0.5
DFOV (cm)	Lungs*
RECON2	
Algorithm	B31f
Thickness (mm)	0.75
Interval (mm)	0.5
DFOV (cm)	Lungs*

*reconstruction field of view should encompass the widest diameter of the lung.

(c) Expiratory CT

- For the second part of this scan, I am going to ask you to breathe out and hold it out.
- First, let's practice
  - Take a deep breath in
  - Breathe out and hold it – do not breathe
  - Breathe and relax
- Take a deep breath in
  - Let it out
- Take a deep breath in
  - Let it out
- Take another deep breath in
  - Let it out and hold it out
  - Keep holding your breath – DO NOT BREATHE!
  - *At end of scan:* Breathe and relax

Start at **bottom** of lungs; end at **top** of lungs.

Expiratory CT – for SIEMENS Sensation-64

Scanner make	**SIEMENS**
Scanner model	**Sensation-64**
Scan Type	Spiral
Rotation Time (S)	0.5
Det. Configuration	64 x 0.6
Pitch	1.1
Speed (mm/rot)	21.1
kVp	120
mA	*Effective mAs*: 50
Dose modulation	CARE Dose 4D off
Reconstructions	
RECON1	
Algorithm	B46f
Thickness (mm)	0.75
Interval (mm)	0.5
DFOV (cm)	Lungs*
RECON2	
Algorithm	B31f
Thickness (mm)	0.75
Interval (mm)	0.5
DFOV (cm)	Lungs*

*reconstruction field of view should encompass the widest diameter of the lung.

CT Protocol
PHILIPS 16 Slice

8/05/09

(a) Scout views: PA and lateral

The following instructions should be given to the patient:

- Take a deep breath in and hold it
- Breathe and relax

(b) Inspiratory CT

The following instructions should be given to the patient:

- For the first part of this scan, I am going to ask you to take a deep breath in and hold it
- First, let's practice
  - Take a deep breath in
  - Hold it – do not breathe
  - Breathe and relax
- Take a deep breath in
  - Let it out
- Take a deep breath in
  - Let it out
- Breathe all the way IN..IN..IN
  - Keep holding your breath – DO NOT BREATHE!
  - *At end of scan:* Breathe and relax

Start at **bottom** of lungs; end at **top** of lungs.

Inspiratory CT – for PHILIPS 16 Slice

Scanner make	**PHILIPS**
Scanner model	**16 Slice**
Scan Type	Axial Helix
Rotation Time (S)	0.5
Det. Configuration	16 x 0.75
Pitch	1.188
Speed (mm/rot)	0.5
kVp	120
mA	200 mAs
Dose modulation	Off
Reconstructions	
RECON1	
Algorithm	Detail (D)
Thickness (mm)	0.9
Interval (mm)	0.45
DFOV (cm)	Lungs*
RECON2	
Algorithm	B
Thickness (mm)	0.9
Interval (mm)	0.45
DFOV (cm)	Lungs*

*reconstruction field of view should encompass the widest diameter of the lung.

(c) Expiratory CT

- For the second part of this scan, I am going to ask you to breathe out and hold it out.
- First, let's practice
  - Take a deep breath in
  - Breathe out and hold it – do not breathe
  - Breathe and relax
- Take a deep breath in
  - Let it out
- Take a deep breath in
  - Let it out
- Take another deep breath in
  - Let it out and hold it out
  - Keep holding your breath – DO NOT BREATHE!
  - *At end of scan:* Breathe and relax

Start at **bottom** of lungs; end at **top** of lungs.

Expiratory CT – for PHILIPS 16 Slice

Scanner make	**PHILIPS**
Scanner model	**16 Slice**
Scan Type	Axial Helix
Rotation Time (S)	0.5
Det. Configuration	16 x 0.75
Pitch	1.188
Speed (mm/rot)	0.5
kVp	120
mA	50 mAs
Dose modulation	Off
Reconstructions	
RECON1	
Algorithm	Detail (D)
Thickness (mm)	0.9
Interval (mm)	0.45
DFOV (cm)	Lungs*
RECON2	
Algorithm	B
Thickness (mm)	0.9
Interval (mm)	0.45
DFOV (cm)	Lungs*

*reconstruction field of view should encompass the widest diameter of the lung.

CT Protocol
PHILIPS 40 Slice

8/05/09

(a) Scout views: PA and lateral

The following instructions should be given to the patient:

- Take a deep breath in and hold it

Breathe and relax

(b) Inspiratory CT

The following instructions should be given to the patient:

- For the first part of this scan, I am going to ask you to take a deep breath in and hold it
- First, let's practice
  - Take a deep breath in
  - Hold it – do not breathe
  - Breathe and relax
- Take a deep breath in
  - Let it out
- Take a deep breath in
  - Let it out
- Breathe all the way IN..IN..IN
  - Keep holding your breath – DO NOT BREATHE!
  - *At end of scan:* Breathe and relax

Start at **bottom** of lungs; end at **top** of lungs.

Inspiratory CT – for PHILIPS 40 Slice

Scanner make	**PHILIPS**
Scanner model	**40 Slice**
Scan Type	Axial Helix
Rotation Time (S)	0.5
Det. Configuration	16 x 0.625
Pitch	0.923
Speed (mm/rot)	0.5
kVp	120
mA	200 mAs
Dose modulation	Off
Reconstructions	
RECON1	
Algorithm	Detail (D)
Thickness (mm)	0.9
Interval (mm)	0.45
DFOV (cm)	Lungs*
RECON2	
Algorithm	B
Thickness (mm)	0.9
Interval (mm)	0.45
DFOV (cm)	Lungs*

*reconstruction field of view should encompass the widest diameter of the lung.

(c) Expiratory CT

- For the second part of this scan, I am going to ask you to breathe out and hold it out.
- First, let's practice
  - Take a deep breath in
  - Breathe out and hold it – do not breathe
  - Breathe and relax
- Take a deep breath in
  - Let it out
- Take a deep breath in
  - Let it out
- Take another deep breath in
  - Let it out and hold it out
  - Keep holding your breath – DO NOT BREATHE!
  - *At end of scan:* Breathe and relax

Start at **bottom** of lungs; end at **top** of lungs.

Expiratory CT – for PHILIPS 40 Slice

Scanner make	**PHILIPS**
Scanner model	**40 Slice**
Scan Type	Axial Helix
Rotation Time (S)	0.5
Det. Configuration	16 x 0.625
Pitch	0.923
Speed (mm/rot)	0.5
kVp	120
mA	50 mAs
Dose modulation	Off
Reconstructions	
RECON1	
Algorithm	Detail (D)
Thickness (mm)	0.9
Interval (mm)	0.45
DFOV (cm)	Lungs*
RECON2	
Algorithm	B
Thickness (mm)	0.9
Interval (mm)	0.45
DFOV (cm)	Lungs*

*reconstruction field of view should encompass the widest diameter of the lung.

CT Protocol
PHILIPS 64 Slice

8/05/09

(a) Scout views: PA and lateral

The following instructions should be given to the patient:

- Take a deep breath in and hold it

Breathe and relax

(b) Inspiratory CT

The following instructions should be given to the patient:

- For the first part of this scan, I am going to ask you to take a deep breath in and hold it
- First, let's practice
  - Take a deep breath in
  - Hold it – do not breathe
  - Breathe and relax
- Take a deep breath in
  - Let it out
- Take a deep breath in
  - Let it out
- Breathe all the way IN..IN..IN
  - Keep holding your breath – DO NOT BREATHE!
  - *At end of scan:* Breathe and relax

Start at **bottom** of lungs; end at **top** of lungs.

Inspiratory CT – for PHILIPS 64 Slice

Scanner make	**PHILIPS**
Scanner model	**64 Slice**
Scan Type	Axial Helix
Rotation Time (S)	0.5
Det. Configuration	64 x 0.625
Pitch	0.923
Speed (mm/rot)	0.5
kVp	120
mA	200 mAs
Dose modulation	Off
Reconstructions	
RECON1	
Algorithm	Detail (D)
Thickness (mm)	0.9
Interval (mm)	0.45
DFOV (cm)	Lungs*
RECON2	
Algorithm	B
Thickness (mm)	0.9
Interval (mm)	0.45
DFOV (cm)	Lungs*

*reconstruction field of view should encompass the widest diameter of the lung.

(c) Expiratory CT

- For the second part of this scan, I am going to ask you to breathe out and hold it out.
- First, let's practice
  - Take a deep breath in
  - Breathe out and hold it – do not breathe
  - Breathe and relax
- Take a deep breath in
  - Let it out
- Take a deep breath in
  - Let it out
- Take another deep breath in
  - Let it out and hold it out
  - Keep holding your breath – DO NOT BREATHE!
  - *At end of scan:* Breathe and relax

Start at **bottom** of lungs; end at **top** of lungs.

Expiratory CT – for PHILIPS 64 Slice

Scanner make	**PHILIPS**
Scanner model	**64 Slice**
Scan Type	Axial Helix
Rotation Time (S)	0.5
Det. Configuration	64 x 0.625
Pitch	0.923
Speed (mm/rot)	0.5
kVp	120
mA	50 mAs
Dose modulation	Off
Reconstructions	
RECON1	
Algorithm	Detail (D)
Thickness (mm)	0.9
Interval (mm)	0.45
DFOV (cm)	Lungs*
RECON2	
Algorithm	B
Thickness (mm)	0.9
Interval (mm)	0.45
DFOV (cm)	Lungs*

*reconstruction field of view should encompass the widest diameter of the lung.