

**Absorbed dose from 8-400MeV proton totals (skin, body).**

Outboard trajectory	77.205633rad, 4.747660rad
Inboard trajectory = (Outboard trajectory)*2/5	30.8822532rad, 1.899064rad
<b>TOTALS</b>	<b>108.0878862rad</b> <b>6.646724rad</b>

Equivalent dose from 8-400MeV protons = (Absorbed dose)\*Q = (Absorbed dose)\*2

Equivalent dose corrected = (Absorbed dose)\*Q\*(correction factor) = (Absorbed dose)\*2\*3

**Equivalent dose from 8-400MeV proton totals (skin, body).**

Trajectory	Equivalent dose (uncorrected)	Equivalent dose (corrected)
Outboard trajectory	154.411266rad, 9.49532rad	463.233798rad, 28.48596rad
Inboard trajectory = (Outboard trajectory)*2/5	61.7645064rad, 3.798128rad	185.2935192rad, 11.394384rad
<b>TOTALS</b>	<b>216.1757724rad,</b> <b>13.293448rad</b>	<b>648.5273172rad,</b> <b>39.880344rad</b>

**Estimated corrected equivalent dose from secondary neutrons (skin, body)  
(Neutron dose = 0.3\*proton dose)**

Trajectory	Protons	Neutrons	TOTALS
Outboard trajectory	463.233798rad, 28.48596rad	138.9701394rad, 8.545788rad	602.2039374rad, 37.031748rad
Inboard trajectory = (Outboard trajectory)*2/5	185.2935192rad, 11.394384rad	55.58805576rad, 3.4183152rad	240.881575rad, 14.8126992rad
<b>TOTALS</b>	<b>648.5273172rad,</b> <b>39.880344rad</b>	<b>194.5581952rad,</b> <b>11.9641032rad</b>	<b>843.0855124rad,</b> <b>51.844472rad</b>

Equivalent dose from 8-400MeV protons = (Absorbed dose)\*Q = (Absorbed dose)\*3

Equivalent dose corrected = (Absorbed dose)\*Q\*(correction factor) = (Absorbed dose)\*3\*3

**Equivalent dose from 8-400MeV proton totals (skin, body).**

Trajectory	Equivalent dose (uncorrected)	Equivalent dose (corrected)
Outboard trajectory	231.616899rad, 14.242980rad	694.850697rad, 42.72894rad
Inboard trajectory = (Outboard trajectory)*2/5	92.6467596rad, 5.697192rad	277.9402788rad, 17.091576rad
<b>TOTALS</b>	<b>324.2636586rad,</b> <b>19.940172rad</b>	<b>972.7909758rad,</b> <b>59.820516rad</b>

**Estimated corrected equivalent dose from secondary neutrons (skin, body)  
(Neutron dose = 0.3\*proton dose)**

<b>Trajectory</b>	<b>Protons</b>	<b>Neutrons</b>	<b>TOTALS</b>
Outboard trajectory	694.850697rad, 42.72894rad	208.4552091rad, 12.818682rad	903.3059061rad, 55.547622rad
Inboard trajectory = (Outboard trajectory)*2/5	277.9402788rad, 17.091576rad	83.38208364rad, 5.1274728rad	361.3223624rad, 22.2190488rad
<b>TOTALS</b>	<b>972.7909758rad, 59.820516rad</b>	<b>291.8372927rad, 17.9461548rad</b>	<b>1,264.628269rad, 77.7666708rad</b>

Equivalent dose from 8-400MeV protons = (Absorbed dose)\*Q = (Absorbed dose)\*4

Equivalent dose corrected = (Absorbed dose)\*Q\*(correction factor) = (Absorbed dose)\*4\*3

**Equivalent dose from 8-400MeV proton totals (skin, body).**

<b>Trajectory</b>	<b>Equivalent dose (uncorrected)</b>	<b>Equivalent dose (corrected)</b>
Outboard trajectory	308.822532rad, 18.99064rad	926.467596rad, 56.97192rad
Inboard trajectory = (Outboard trajectory)*2/5	123.5290128rad, 7.596256rad	370.5870384rad, 22.788768rad
<b>TOTALS</b>	<b>432.3515448rad, 26.586896rad</b>	<b>1,297.054634rad, 79.760688</b>

**Estimated corrected equivalent dose from secondary neutrons (skin, body)  
(Neutron dose = 0.3\*proton dose)**

<b>Trajectory</b>	<b>Protons</b>	<b>Neutrons</b>	<b>TOTALS</b>
Outboard trajectory	926.467596rad, 56.97192rad	277.9402788rad, 17.091576rad	1,204.407875rad, 74.063496rad
Inboard trajectory = (Outboard trajectory)*2/5	370.5870384rad, 22.788768rad	111.1761115rad, 6.8366304rad	481.7631499rad, 29.6253984rad
<b>TOTALS</b>	<b>1,297.054634rad, 79.760688</b>	<b>389.1163903rad, 23.9282064rad</b>	<b>1,686.171025rad, 103.6888944rad</b>

Equivalent dose from 8-400MeV protons = (Absorbed dose)\*Q = (Absorbed dose)\*5

Equivalent dose corrected = (Absorbed dose)\*Q\*(correction factor) = (Absorbed dose)\*5\*3

**Equivalent dose from 8-400MeV proton totals (skin, body).**

<b>Trajectory</b>	<b>Equivalent dose (uncorrected)</b>	<b>Equivalent dose (corrected)</b>
Outboard trajectory	386.028165rad, 23.738300rad	1,158.084495rad, 71.21490rad
Inboard trajectory = (Outboard trajectory)*2/5	154.411266rad, 9.49532rad	463.233798rad, 28.48596rad
<b>TOTALS</b>	<b>540.439431rad, 33.23362rad</b>	<b>1,621.318293rad, 99.70094rad</b>

**Estimated corrected equivalent dose from secondary neutrons (skin, body)  
(Neutron dose = 0.3\*proton dose)**

<b>Trajectory</b>	<b>Protons</b>	<b>Neutrons</b>	<b>TOTALS</b>
Outboard trajectory	1,158.084495rad, 71.21490rad	347.4253485rad, 21.36447rad	1,505.509844rad, 92.57937rad
Inboard trajectory = (Outboard trajectory)*2/5	463.233798rad, 28.48596rad	138.9701394rad, 8.545788rad	602.2039374rad, 37.031748rad
<b>TOTALS</b>	<b>1,621.318293rad, 99.70094rad</b>	<b>486.3954879rad, 29.910258rad</b>	<b>2,107.713781rad, 129.611118rad</b>

**Average of primary and secondary doses from above tables**

<b>Trajectory</b>	<b>Protons</b>	<b>Neutrons</b>	<b>TOTALS</b>
Outbound trajectory	810.6591465rad, 49.85043rad	243.197744rad, 14.955129rad	1,053.856891rad, 64.805559rad
Inbound trajectory	324.2636586rad, 19.940172rad	97.27909758rad, 5.9820516rad	421.5427562rad, 25.9222236rad
<b>TOTALS</b>	<b>1,134.922805rad, 69.790602rad</b>	<b>340.4768416rad, 20.9371806rad</b>	<b>1,475.399647rad, 90.7278136rad</b>